

BULLETIN

OF THE

American Iris Society

January, 1933

RATING QUESTIONS

No. 46

Editor, R. S. STURTEVANT.

CONTENTS

Report of the President. John C. Wister	1
1952 ACTIVITIES	4
Awards, Report of the Committee on	5
Why Rate? Harry Esty Dounce, N. Y.	8
Scoring and Rating New Irises. E. O. Essig, Calif.	16
Comments. Chas. E. F. Gersdorff, Washington, D. C.	18
Regional Ratings. Sam H. Graham, Ga.	20
Reckless Ratings. J. H. Kirkland, Tenn.	22
Protest and Suggestions. Lena M. Lothrop, Calif.	24
Appraising the Current Ratings. J. Marion Shull, Washington, D. C	26
How Were They Judged? Robert Wayman, N. Y. (to be cont.)	29
New England Recommends Varieties	33
Intermediate and Fall Blooming Irises. Dr. H. H. Everett, Neb	35
At the Boston Show. Mrs. Horatio Gates Lloyd. A reprint	39
Rose Dominion, E. A. S. Peckham	41
1932 Introductions	45
Additions to List of Breeders and Introducers	57
The New Classification for Bearded Iris	59
1932 Registrations	60
Books. From a Sunset Garden, by S. B. Mitchell; Perennial Gardens, by	
H. S. Ortloff	77
Varietal Notes. "Largely from England, Australia, and Italy	78
Test Gardens—Publications	87

Commercial growers are advised that 1932 Ratings are not official and should not be used for publicity.

Published Quarterly by SCIENCE PRESS PRINTING COMPANY, LIME & GREEN STS., LANCASTER, PA.

OFFICERS 1933

Directors:

Term expiring 1933: Dr. H. H. Everett

J. B. Wallace, Jr. Jacob Sass Richardson Wright

Term expiring 1934: Mrs. W. H. Peckham R. S. Sturtevant

A. P. Saunders

E. B. Williamson

Term expiring 1935:

Mrs. J. Edgar Hires B. Y. Morrison F. B. Mead John C. Wister

President-John C. Wister, Wister St. and Clarkson Avenue, Germantown, Philadelphia, Pa.

Vice-President—Dr. H. H. Everett, 1104 Sharp Bldg., Lincoln, Nebr.

Secretary-J. B. Wallace, Jr., 129 Church St., New Haven, Conn.

Treasurer—Richardson Wright, House & Garden, Graybar Bldg., New York City. Regional Vice-Presidents-

- 1. Mrs. Thomas Nesmith, 166 Fairmount St., Lowell, Mass.
- 2. Col. J. C. Nicholls, 114 Overlook Rd., Ithaca, N. Y.
- 3. M. E. Douglas, Rugby Place, Woodbury, N. J.
- 4. E. W. Sheets, 1831 Lamont St., N. W., Washington, D. C.
- 5. Mrs. James R. Bachman, 2646 Alston Drive, Atlanta, Ga.
- 6. W. A. Payne, Box 685, Terre Haute, Ind.
- 7. C. P. Connell, 2001 Grand Ave., Nashville, Tenn.
- 8. Robert Schreiner, R. 1, Riverview Station, St. Paul, Minn.
- 9. Euclid Snow, R. F. D. 2, Hinsdale, Ill.
- 10. Mrs. Gross R. Scruggs, 3715 Turtle Creek Blvd., Dallas, Texas.
- 11. David C. Petrie, R. F. D. 2, Boise, Idaho.
- 12. Dr. P. A. Loomis, Colorado Springs, Colo.
- 13. R. M. Cooley, Silverton, Oregon.
- 14. Prof. E. O. Essig, University of California, Berkeley, Calif.
- 15. William Miles, Ingersoll, Ontario, Canada.

Chairmen of Committees:

Scientific-Dr. A. E. Waller.

Election-Dr. C. Stuart Gager.

Membership and Publicity-Dr. H. H. Everett.

Registration-C. E. F. Gersdorff.

Annual Meeting-Mrs. W. L. Karcher.

Test Garden-Mrs. W. H. Peckham.

Display Garden-Mrs. Brewster B. Hoornbeek.

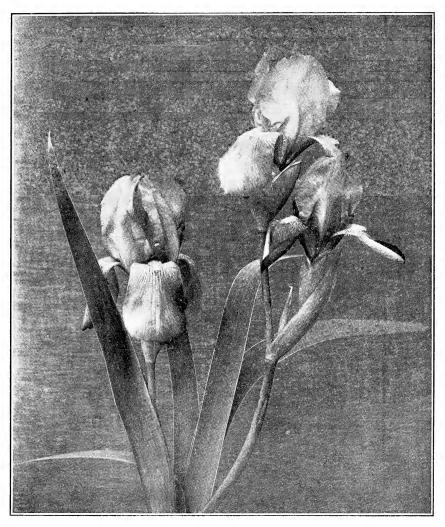
Exhibition-Mrs. W. L. Karcher.

Bibliography-Mrs. W. H. Peckham.

Awards-Dr. H. H. Everett.

Editor-R. S. Sturtevant, Groton, Mass.





Iris Copper Luster (Kirk N.)

The flower is large, of pleasing form and unique color. Stalk 36 to 40 inches tall, well branched, vigorous grower; foliage broad and heavy. The color effect is iridescent copper self, almost exactly the shade of a nearly new penny. The iridescence is like a red-gold or copper powdering and the flower glows in a northern light.

THE AMERICAN IRIS SOCIETY

REPORT OF PRESIDENT, FOR 1932

It has always been my most earnest wish to promote the permanent welfare of the society by keeping it truly national and free from all sectional feeling. Our society was organized by easterners, prominent among whom were Dr. H. A. Gleason, H. F. Presby, B. H. Farr, James Boyd, B. Y. Morrison and R. S. Sturtevant, with all of whom I worked in the autumn of 1919 to prepare for the organization meeting in 1920. We early had the cooperation of Lee R. Bonnewitz, who came on to take an important part in that meeting, of Mr. E. B. Williamson, of Mrs. J. J. Dean and of Mr. Floyd Bralliar, and of other persons from the central west, the far west and from the south. A new society, it was necessary for us to concentrate our working officers within a small radius in the east so that frequent meetings could be held, but even then we had Mr. W. A. Peterson, of Chicago, as our Vice-President, and Mr. E. C. Shaw, of Akron, as a director.

It is well to emphasize how difficult it is for a national society like ours to hold meetings. It involves long journeys, great expense and loss of time for many of the board. As our western directors have for years been coming to eastern meetings it was a source of great satisfaction to me that we were able to hold our November directors' meeting in Chicago.

As a society our officers and committees have worked together with greater harmony and less friction than any similar organization of which I have ever heard. But strong differences of opinion have existed and do exist in our working organization. I am glad they do! Were they absent I should suspect we were all dead and didn't know it! But dissensions we have never had for we have always been held firmly together by our common purpose.

I am sorry that reports of such personal differences of opinion as to what was best for the society have sometimes led some members to feel that one section or one person was arrayed against the other, or that one section or one person was assuming more importance or more authority than another. A certain kind of efficiency can undoubtedly be secured by steam rollering individual opinions, but it has seemed to me much wiser to encourage the greatest possible freedom of expression. I firmly believe our strength has come from such differences which have been argued not only during the meetings but far into the night either before or after the meeting.

One of the greatest subjects for argument has always been the the question of awards and ratings. As the millenium is not yet at hand it seems unlikely that any system we may adopt, will give universal satisfaction. But I do firmly believe that our 1933 regulations are by far the wisest that we have ever had. Many changes have been made in response to suggestions, requests and criticisms. Looking over the many letters received on this subject I am drawn to the conclusion that the best way to work out a good system is to try out a bad one! A deluge of criticisms then descends upon us, many of them from people whose opinion we had asked before the old system was adopted but who had not helped with constructive criticism then!

This year, particularly, the published ratings have been criticized and one wholesome result has been the decision not to publish in future ratings where less than five judges have reported.

Our elections in the past have often been too much a matter of form with only four persons nominated for four offices. The welfare of the society demands that constant new blood should come into the organization and that the members should be given a wide choice of candidates. This year the members have had that choice. While I am naturally gratified at the large vote of confidence given to me and the other two candidates who were up for reelection, I feel genuinely sorry that all the new candidates could not have been elected also, for all of them were persons who would bring strength to the board. I am grateful to them for allowing their names to be placed before the members and I hope that before many years all of them will find a place on our board.

This society, like most similar organizations, has lost members during the last few years; in fact we have dropped from approximately 1200 in 1929 to approximately 900. It is easy and simple to blame this on the depression and thus have an alibi. Some persons, however, believe that part of this drop is due to the fact that some of the Bulletins have been too technical and that they appeal

to the expert rather than to the average gardener. That question has often come before the board, and the opinion has always been unanimous that we would rather keep the high standard of the Bulletin than to try to force an increase of members by high pressure ballyhoo. We have often mentioned other organizations which are much larger than we are, but which publish bulletins which, we believe, do not compare in literary or scientific value to our own. We do, however, want to keep part of every bulletin popular, and we shall welcome suggestions from the members as to what types of articles have the most general appeal.

I have during the past four or five years often been discouraged at the work of the society, the difficulty of arranging meetings and of transacting the proper business in the short meeting time. society work, like that of all similar organizations, has had to be done by a few persons and this has of course led to charges from time to time that it is run by a clique. If the word "clique" means people who are willing to put their shoulders to the wheel and do the work when others shirk it, this charge is perfectly true. I can only say for those who have been associated with me that I have never seen more willing or more conscientious workers who have invariably put the affairs of the society before their own personal conveniences and desires. It is only through the cooperation of such persons that I have been induced to hold my office for such a long period. I am at present most optimistic about the future of the society because we have in the past two or three years brought into our organization a number of new, enthusiastic and willing workers. I feel that a change in the management can now be made safely and wisely when a few years ago it was difficult to see how persons could be secured to carry on.

It is the duty of the Board of Directors to outline the policies of the society. The boards of the past have authorized certain projects and through organization by committees we have been able to establish test gardens, scientific research, display gardens, traveling libraries and traveling lantern slide collections, exhibitions and various other activities which are reported to you in the Bulletin. It is these activities which make membership in the society different from a mere subscription to a magazine, and while it must be remembered that most members pay their three dollars and get merely the Bulletin, the real value of that Bulletin depends upon information derived from these other activities. All our undertakings, of

course, have not been uniformly successful. When criticisms have been made, often all that could be said in answer was that we had done the best we could when our circumstances and limitations were considered. I hope that in some future time the society may have money enough to conduct its activities in the way we all desire. Our officials have not been blind to our many shortcomings and are doing their best to make our work constantly more efficient and our results more and more worth while.

Respectfully submitted,

JOHN C. WISTER.

1932 ACTIVITIES

Publications, Bulletins Nos. 42, 43, 44, 45.

Awards. See report of Committee for awards to varieties.

Medals. Silver to Mrs. Thomas Nesmith, Boston; Mrs. M. F. Bates, Duluth; O. E. Heard, Jr., Freeport; Mrs. F. H. Clutton, Highland Park, Ill.; Dr. E. H. Barbour, Lincoln, Neb.; Mrs. Mar-

cella Keller, St. Joseph, Mo.; J. Stealey Elms, Washington.

Bronze Medals to Miss Grace Sturtevant, Boston; Mrs. J. B. Finch, Duluth; Rev. E. K. Thurlow, Great Barrington, Mass.; M. P. Michel, Highland Park, Ill.; Mrs. Mabel Wernimot, Lincoln, Neb.; Mrs. R. D. Caldwell, Lynchburg, Va.; Miss Ruth Prescott, Redlands, Calif.; E. A. Byous, St. Joseph, Mo.; Mrs. L. M. Lothrop, San Bernandino, Calif.; Mrs. Paul V. Tuttle, San Diego, Calif., and C. J. Carr, Washington.

Exhibitions. Boston, Mass., Duluth, Minn., Freeport, Ill., Great Barrington, Mass., Highland Park, Ill., Lincoln, Neb., Lynchburg, Va., Redlands, Calif., St. Joseph, Mo., San Bernandino, Calif.,

San Diego, Calif., Washington, D. C.

Annual Meeting, June 8, 1932, at 4 P. M. at Horticultural Hall, Boston, Mass., in conjunction with a large exhibition held in cooperation with the Massachusetts Horticultural Society at the time of the meeting of the National Council of the Sate Federations of Garden Clubs.

With Mr. Wister presiding the reports of the officers were read and approved. The meeting was preceded by visits to gardens en route and was followed by a dinner at the Copley Plaza with Mr. Richardson Wright as toastmaster. The attendance was excellent and comments from members from many states were most valuable. Mrs. Thomas Nesmith, Regional Vice-President and Chairman of

the Show Committee, received a rising vote of thanks.

Meeting of the Directors, Nov. 26, 1932, Palmer House, Chicago, Ill. Reports of Officers and Committees accepted. The Secretary was authorized to give not more than twelve free memberships as in 1932. After long discussion Dr. Everett was appointed Chairman of a new committee on Publicity and Membership. (Members are referred to January and April Bulletins for details of Committee reports. Ed.)

[4]

REPORT OF THE COMMITTEE ON AWARDS

The committee on awards of the American Iris Society met at the Palmer House in Chicago on November 25th and voted the following awards which were approved by the directors at a meeting the following day.

Dykes Medal—Rameses (Sass—H. P. 1929).

Awards of Merit—In the order voted, Desert Gold (Kirk. 1929); Polar King (Donahue 1930); Royal Beauty (McKee 1931); Clara Noyes (Sass—H. P. 1930); Chromylla (Loomis 1930).

Honorable Mention

Blue Hill (Sass—H. P. 1931)
Crysoro (Nic. 1931)
Coralie (Ayres 1932)
Cyrus (Sass—H. P. 1930)
Eloise Lapham (Lap. 1932)
El Tovar (Sass—H. P. N.)
Ethel Peckham (Wmsn. 1932)
Gilead (Andr. 1931)
Joycette (Sass—J. 1932)
King Juba (Sass—H. P. 1930)
Lady Paramount (White—C. G. N.)
Mareschal Ney (Wmsn. 1930)
Moon Magic (Shull 1931)

Mt. Whitney (Millik. N.)
Nepenthe (Con. 1931)
Phosphor (Shull 1931)
Red Radiance (Grinter 1932)
Red Robe (Nic. 1931)
Rose Dominion (Con. 1931)
Santa Fe (Mohr-Mit. 1930)
Selene (Con. 1931)
Shirvan (Loomis 1932)
Spring Maid (Loomis 1932)
Sweet Alibi (White—C. G. N.)
Valor (Nic. 1932)
Venus de Milo (Ayres 1931)

There were ten nominations for the Dykes Medal; nineteen for Awards of Merit, and 102 for Honorable Mention. The awards were made unanimous by the committee. The members of the committee present were John C. Wister, chairman; Mrs. Silas B. Waters, Mrs. W. L. Karcher, Mrs. Wheeler H. Peckham and Sherman R. Duffy.

The members of the committee also attended the meeting of the board of directors the following day. The directors present were President, John C. Wister; Vice President, E. B. Williamson; Mrs. Wheeler H. Peckham; Franklin B. Mead, and Dr. Harry H. Everett.

The Committee on Awards with the approval of the Directors voted that hereafter a minimum of five (5) judges shall be required to establish an official rating; that ratings shall close July 15th.

The Committee will adopt a new point score for trial as the point score last season proved unsatisfactory. It resulted in such discrepancies in ratings and such a low scale of rating that there has been much criticism and complaint. The new point score is to be compiled on the basis of these suggestions. There is only one

way to test a point score and that is to try it and see how well it works.

The new score will be adopted on this basis. Full instructions and interpretations of the score card will be issued with the scoring blanks.

Two suggestions were made to the committee which it deemed of great importance and merit. These were Prof. Van Name's standardization scheme for scoring and a proposal to establish ratings by region. Both suggestions were found to have so many ramifications and points of practical application that the committee decided that they must be deferred for further study. In considering the plan for ideal score cards to act as guides to the judges, the committee felt that it first would be necessary to develop a score card of proved value before the standardization schedule could be made.

The factor of outstanding value with 15 points proved the great stumbling block in last season's scoring. It, in effect, forced a rating on two different bases, one of 85 and one of 100. A good iris with no outstanding quality started with 85 and all discounts were in addition to the 15 points which could not be scored for outstanding quality. A score of 65 on all other points but outstanding quality would be raised to 80 by scoring 15 points for outstanding quality. For this reason many excellent irises were labeled with ratings below 70 which have been accepted as the discard symbol by the society. None of the critics, a number of whom arraigned the judges severely, took into any account at all that there was a possibility of a discrepancy of 15 points between two judges at the very start of scoring, depending upon whether or not they decided the iris under study was outstanding.

Outstanding quality, the committee on awards decided, either no longer exists as it did in the early days of the society when it was placed in the point score or its value has receded to a matter of novelty in coloring only. Novelty can be added to the scoring for color to care for such scoring value as there was in outstanding quality. As it is a fleeting value at best,—present one year it is likely to be lost the next, the committee considers three points sufficient. The 15 points for outstanding quality may be allotted to garden quality which the committee deems more important and which gives opportunity to give truer value to many excellent irises which would have low scores if considered only as to the points for

bloom and stalk.

There was criticism that scoring for carrying quality under the factor of color placed undue importance on light selfs and undue discounts on dark irises and blends. Carrying quality of color may be placed under the garden value score where it seems more properly to belong.

The greatest number of criticisms received were directed at the five points for fragrance. A five point discount for fragrance was

deemed excessive. Some critics advocated dropping fragrance from the score on the ground that it had no part either in the garden picture or on the show bench and while desirable was purely incidental and unimportant. Others believed it should be scored but that not more than three points should be allowed for it. The Royal Horticultural Society point score should be followed here as offering the best solution of the problem. This combines 3 points for fragrance under the head of quality with substance and texture the important factors.

Other criticisms were to the effect that ten points for foliage was excessive and there was much questioning as to just what feature of foliage was intended. Foliage seems an integral part of

vigor and should be there included.

There was some question as to whether floriferousness meant the number of blooming stalks to the number of fans or the number of buds to a stalk. The committee believed it included both.

The point score card now under consideration is as follows:

${f FLOWER}.$		${f PLANT}$.	
Color (clarity, 10; brilliance, 7; richness or delicacy, 5; novelty, 3)	25%	Vigor (rapidity of increase, foliage, hardiness)	10%
Quality (substance, 7; texture, 5; resistance to weather, 5; fragrance, 3)	20%	Floriferousness (freedom of bloom, number of bloom stalks to number of fans; number of buds to stalk)	10%
Form	10%	Stalk	10%
Garden Value (for massing, 5; carrying quality, 5; extension of season, 5)	15%		
			100%

The Editor edits notes from Sherman L. Duffy.

WHY RATE?

HARRY ESTY DOUNCE

As a back-yard amateur I would not, ordinarily, offer criticism of the proceedings of the experts in such a matter as ratings. evening's examination of the Society's 1932 Symposium, if that is what it is, persuaded me that in this case discussion need not be left to the expert; that criticism so severe as to be destructive could be based on mere arithmetic. Fourteen hundred irises rated—only forty of them by more than nine judges; 697, virtually half, by not more than two each; 423, not far from a third, by one each. A new iris aristocracy in the 90s totaling thirty-one, of which fourteen were actually still seedlings under number and had been rated, seven by one judge each and the others by not more than three; while all but five or six of the named seventeen were so extremely and un-rate-ably—new that I could not even find out what they were, although I had at hand half a bushel, more or less, of the leading 1932 catalogs. A general revision of the old high ratings downward; but a revision so capricious, and effected in many instances by the reports of so very few judges, that it would not bear a moment's scrutiny for even the little rhyme and reason that may be expected of symposium averages which must not be "weighted." Such indifference about the obvious importance as criteria—as those fixed points of reference for judges which Dr. Van Name most pertinently suggests—of "old" good varieties like Ambassadeur and Gaudichau, which everybody knows by heart, that only seven or eight judges would take the trouble to re-rate them in the light of the improvement of the bearded iris during the past five years. And a rash of such odd blemishes, each trivial in itself, as the rating of 90 (among what?—oncocyclus?) given susiana by one judge; or the ratings given the familiar fall bloomers, Autumn King and Autumn Queen, by two judges who were more than twenty points apart in their opinions of the value of the fall blooming attribute; or the rating of 80 by one judge which puts Rose Salterne (in 1928, 71 by nine judges) not only on a par with True Charm and Damozel, and away above Princess Osra and Queen Chereau, but actually within eight points of San Francisco.

All this was so irritating that I was going to pitch into it and demonstrate its uselessness as a gauge of the improvement, a valid recognition of the achievements of breeders, a curb on introductions, an aid to dealers and a guide to small investors (particularly to those who live so far from a big collection that they cannot see the new things for themselves), or anything else that an A. I. S. symposium should be.

Reflection has decided me that its shortcomings are self-evident and there can be no point in rubbing them in. I also feel much sympathy for Mr. Sherman Duffy, if he had the thankless job of dragging the reports in and compiling them, as well as that of putting a good face on the result in solemnly introducing it in the Bulletin. When I read his introduction my sympathy grew poignant. Where, oh, where was Mr. Duffy's bump of logic, not to speak of his familiar and delightful sense of humor? Or was he joking when he declared "this, the third symposium of the American Iris Society" to be "the consensus of opinion of forty-seven accredited judges?" At any rate, that is the best joke in print in the iris world since a resounding address to the commercial growers, by one of them, was reprinted in the Bulletin under the title, "Confessions of an Iris Lover." Why, almost the only thing Mr. Duffy said about these ratings through which you cannot drive a motor bus was that they were "spread so thinly" over a "great field!" There is the root of nearly every fault that can be found with them. They are spread so thinly that they are no good, no matter who the judges may have been. That is, they are no good if this is formally, officially, the Society's third symposium in succession to those of 1927-28; and isn't just a casual compilation of scattered estimates, a composite Tidbits item, possibly the first of an annual series of its kind.

Around that if there seems to be some difference of opinion. Mr. Duffy takes the graver view. The Bulletin doesn't, and inclines to the other; at least, neither in its table of contents nor in the editor's comments, I notice, will it call the thing the Society's third symposium. It calls it "Ratings as Reported by Accredited Judges," and Mr. Sturtevant himself betrays a surprising and rather dismaying pessimism. "Have we not," he inquires, "reached the point where we must forsake the attempt either to limit introductions or to pick and choose as a Society certain varieties for recognition? Should we not concentrate our efforts on establishing a safe standard of judgment and annual reports on many varieties?"

Well, now, is this list in the October Bulletin the Society's third symposium, or isn't it? Are we rank-and-filers to take it seriously, or aren't we? And if not, would it not have been wiser of those in charge to face the fact of its real nature beforehand, and publish it accordingly, so there could be no mistake? For as it is, it will be taken quite seriously. Those in a position to do so will exploit the new high ratings commercially. New breeders whose productions are consistently damned—and perhaps by only one or two judges, who may have seen them but once briefly, in but one garden, and not at their best—will be regarded as discredited. Irises rated much below 70 will be thrown out by some gardeners, or avoided by them. Mr. Duffy is for throwing these out. "Ratings of less than 70, certainly 60 or less, indicate the iris, if new, should not be introduced, or if old should be discarded." As if any such rating as half of this list's could conclusively indicate anything of the kind! And as if any such list, if official, could be as a whole worth the paper it was printed on!

Let me give myself a taste of the sensation of the power enjoyed by the accredited judge who could go about glancing at irises and condemning them offhand as below 70 or "not needed," by pronouncing this list, if official, "not needed" and, as far as I am concerned, not wanted; and let me sum up my criticisms of it in the statement that if official it should not have been published.

However, we certainly need A. I. S. ratings that will have real authority and significance, and in my blissful backyard ignorance of the problems involved in getting them—I mean the human, personal problems, always the most formidable in such an undertaking —I cannot share Mr. Sturtevant's pessimism. It is true that the iris field is swamped with introductions, and that "in practise a thorough knowledge of all varieties by each and every judge"-or by any, for that matter—"has become an impossibility." But surely the swamping would have been far less overwhelming if it had been known to all introducers that the way to any A. I. S. rating was now guarded with some pretty fairly rigorous requirements. And surely the flood would abate even now, and the judges' task come back within bounds, if such requirements were instituted. Can't they be devised? My guess is that they can be, but that devising them is one thing and putting them across, getting them assented to by the iris world, is another. We back-yarders caught a glimpse of the human problems that are hidden from us in Mr. Wis-

ter's introduction to the 1927-28 symposium. "Some of the officers felt," he wrote, "that no variety should be published unless there were five votes on it; others wanted the single votes counted." How can there be any question, from an impersonal standpoint, about a minimum of five votes—or, preferably, ten or more—being essential if the rating is to signify? The whole object in conducting a symposium and averaging ratings, instead of letting one judge make them all, is to insure that predilections and pet aversions, human biases among human experts, "high marking" and "low marking" temperaments, as well as differences in the performance of a given iris in different parts of the country, shall cancel out, so the average will be something like impersonal justice. How can there be any better reason for wanting the single votes counted than an injudicious eagerness to have some admired novelty, the production perhaps of a friend, put gloriously on the A. I. S. iris map long before it has really earned the right to be there?

Mr. Wister said further: "A rating given to a variety that has been introduced only one, two, or three years must obviously be regarded as tentative." Exactly! We all know that even for an exhibition rating the judges must see a characteristic stalk, which cannot be seen until the second or third season after planting; and that for a worth-while garden estimate they must see a well established planting; and that hardiness, dependableness, resistance to rot, and so on—points too commonly lost sight of, but exceedingly important—cannot begin to be determined in less than three years, or in but three or four gardens; and that a seedling under number can have been seen and judged only in the originator's garden and, possibly, a very few others to which it had been sent in advance for trial. So why clutter up a symposium list, add to the burdens of the judges and compiler, and spoil the result, by admitting a lot of tentative ratings?

Why on earth should the Society give its ratings prematurely? Why all this illogical haste? I hope my idea of the answer is wrong—but the only one I can imagine is that they are wanted, are effectually insisted upon, by special elements in the membership.

At all events, a change in the requirements is evidently, as the doctors say, indicated. I have suggestions to offer; but first let me say that I by no means regard myself as qualified to judge an iris with the score card, and that I am under no illusion that these ideas of mine can be new. I feel sure I could think of nothing that the

- A. I. S. authorities had not long since considered and dismissed, and I speak up merely to provoke those who know more about it into explaining my suggestions away and making better ones. Here goes the provocation:
- 1. Let a symposium's judges be, exclusively, picked amateurs. There is more than one sound reason, but a sufficient one is that nowadays, with varieties so numerous and so many close comparisons necessary, ratings cannot be much good unless made with the flowering plants before the judge's eyes, and that during an iris season a commercial grower is too busy to make them.

If so many irises are eligible for rating that no one judge can be asked to deal with them all, then let them be listed in advance, let parts of the list be allotted to well-qualified amateurs the country over, and let the resulting preliminary ratings, as averaged, be subject to revision by the vote of a final board, to be made up of those judges of long and wide experience who grow many irises and "jaunt" a good deal, seeing everything under various conditions.

(That may not be the right way to systematize the big job and distribute its burden, but I cannot believe it impossible to think out and work a system that the numbers of the irises to be rated will not break down as they have broken down the present one—especially if the numbers are kept down as I am about to suggest.)

2. Let no iris be officially rated until it has been introduced at least three years and scored in at least ten (or whatever would be the proper number of) gardens, representing all the regions in which it can be expected to do itself justice; and let no rating derived from the reports of fewer than ten judges be published as the A. I. S. rating, if published at all.

For southern California, and for any other sizable region with a climate that makes radical differences in iris growing, let there be a special regional rating list.

Such time and distribution requirements would certainly tend to keep the numbers within reason. If novelties had to wait three years for rating, and to earn it in quite a few different places, and if it were thoroughly understood that the Society as such expressed no opinion of anything which had not yet been rated, many an illadvised or irresponsibly offered introduction would dispose of itself, and its like would be less numerous in future. I cannot get it out of my head that the bearded iris is primarily a garden flower and essentially a hardy perennial, and that little can be known of a vari-

ety in the former aspect, and nothing in the latter, until it has had a real try-out. Or that the Society exists and does its rating in the interests of the iris and its more selfless devotees, and not to gratify breeders with premature honors or dealers with striking "selling points" for advertising.

- 3. Let no one score in the symposium an iris of his own origination. Who can, with detachment and perspective? Doubtless there are breeders who are excessively critical of their own, but that excess is as bad as the opposite.
- 4. Let the principle of the new classification that takes account of stature as well as of flowering season be followed out in rating, so that we shall have not one but three lists of ratings, dwarf, medium, and tall, of those irises that till lately were lumped off as the tall bearded; and so that an iris will be judged against others of about the same stature, and therefore, as a rule, about the same size, and not against others that are very much taller and larger or shorter and smaller.

It would unquestionably be some trouble to get this going. would necessitate, for one thing, a whole outfit of Dr. Van Name's fixed points—universally known irises, most carefully rated, for criteria. But, once it was got going, a boon would come of it. ratings would cease to put such stress, such an exaggerated premium, upon size, at the expense of clarity, brilliance, refinement, and style. They would no longer boil a hapless White Knight to make soup for a Moonlight or an Argentina, or a Seminole for a Morning Splendor, or a Primrose for a W. R. Dykes. Does anybody seriously contend that, apart from size and from value as a breeder, which latter doesn't figure in ratings, W. R. Dykes-a cranky grower, by the way—is half as fine a flower as Primrose is? Under the new scheme, Primrose might rate 90 in the medium-height division, and W. R. Dykes 75 in the division for the giants. We have done a lot of writing and talking, all along, about the need of dwarf and medium varieties for the front of the border and its midriff, or to perch in the rock garden, or what not-but we have gone right on rating these smaller varieties as if they were intrinsically inferior, and sacrificing more than one important garden consideration to what is largely, beyond a certain point, an exhibition one.

5. Let the score card, with its 100 points, continue in use in individual judging; I suppose it is indispensable. But let the definite figures of the averaged ratings be translated, before publication,

into approximately corresponding grades or merit classes: Class AA, perhaps, meaning 95 or better; Class A, 90 to 95; Class B, 85 to 90; and so on down to a dump-heap class for everything under 70.

I realize that this is the wildest-looking notion I am advancing. Nevertheless, it has its attractions. The least of them would be its easement of the mind of the earnest novice, who may not understand, when one iris is rated 87 and another 85, that the truth is, very likely, that the two are on a par and the difference between the figures is pure happen-so; whereas it does (again I echo Mr. Wister) mean something that one rates 90 and another 80, and it *should* mean much—and not tentatively, either—that a third rates 95 or more. Substitution of grades for figures would bring out these valid meanings and rid not only the novice but, I trust, one sort of expert of the illusion that a flower can be evaluated as a jewel can, and rated with mathematical exactitude.

It should thereby help to clarify the whole problem of ratings; to resolve a muddling conflict of two philosophies, both supported in the present rating practice. The first may be termed iris perfectionism. Its ideal is the attainably perfect flower and plant, which would rate 100 points. It is supported by our judging all the colors and types by one and the same standard of excellence, so that in theory we rate a Polar King 92 or a Lady Paramount 95, not as the best big, tall white or yellow self but as one of the very best of mainseason tall bearded irises. In fact, of course, we don't. In fact, we rate it so high mostly as an exciting achievement and a valuable contribution in a backward color, one in which the iris palette has been poor, and in which big, tall things have been "needed." That is, the philosophy of this rating is the second one, iris utilitarianism, whose ideal is a complete set of varieties in each color, all good enough in themselves, for use in the painting of garden pictures or the decking out of landscapes; and whose implication is that, once we have such a set, all the breeders may hang up their tags and tweezers. Utilitarianism has been supported by the old score card's 15 per cent for "outstanding quality," distinctiveness; and it has expressed itself repeatedly in admonitions to the iris world that we don't need any more Ambassadeurs or Gaudichaus-regardless of improvement, from a perfectionist standpoint, upon the originals.

For an example of the conflict and the muddle, consider the new rating, 87 by six judges, of Souvenir de Loetitia Michaud, in relation to the high ratings of Polar King and such-like. Does this mean, necessarily, that we deem Polar King as an iris five points better, nearer to perfection, than Loetitia Michaud? Of course not. But suppose it did, and suppose some breeder should be prompted to introduce a pale "blue" of the Loetitia Michaud type that was five points better than the original Loetitia and was in every respect on a par with the superior Polar King. Would he not be told by the utilitarians (with all sorts of practical considerations to back them up, I must admit) that his improved Loetitia Michaud was "not needed"?

In short, perfectionism operates to revise the old high ratings downward, but doesn't take a crack at those new things that utilitarians are glad to rate high, while utilitarianism discourages any more improvement in most lines of color, but doesn't prop up the old ratings of the varieties that make improvement unnecessary.

Hence confusion, which I believe to be further confounded by the witch work, the mumbo-jumbo, the hypnotic fascination of A. I. S. ratings in definite figures that purport to be percentages of perfection.

I happen to lean somewhat toward the perfectionist way of thinking. Till we get a Loetitia Michaud at once as refined and exquisite as Marian Mohr (not to speak of the botanically disparate hoogiana) and also hardier and more dependable than the original Loetitia is reputed to be in some sections, I shall feel that there is still work to be done with such "blues," and that the breeders who do it ought to have recognition for it, equally with those who make abrupt, spectacular improvements in white or yellow selfs or bicolors. But I am sorry for the conscience-ridden ultra-perfectionist who is so obsessed by the hundred-point scale and the figures that he thinks it would be all wrong, sacrilegious, to push the scale up to 200 points, if need be; or thinks (I didn't know it ever got as bad as this until, in Mrs. Hires' interesting article on judging, I came across the deplorable plight of "one of our foremost breeders") that on the old score card no iris should have rated above 88, since none could be perfect in any of the card's twelve particulars. This isn't flower judging; it is Kantian metaphysics—it is, How many angels can dance on the point of a needle? By all means, if the point scale does this kind of thing to people, let us use it as the instrument it is and then whisk it out of sight. What we are after is not split hairs but good irises. Likewise, if the scale affords unction to the soul of the expert of another morbid kidney, the toplofty connoisseur, who generally turns out to be a bigot on some feature or other of the form of the flower, by all means let us deprive him of that unction, quick!

If we could minimize this thinking in and worrying over figures, my guess is that all of us—the perfectionists and the utilitarians, the great collectors and the back-yarders, the people who grow an iris with an eye to the show bench, those who grow it as a decoration for a landscape or as a charming companion of Darwin tulip Epizoötic and some baby-blue aposiopesis, and those who grow it simply for the sake of its own beauty—could come closer to agreement upon just what a fine iris is.

SCORING AND RATING NEW IRISES

E. O. Essig, Berkeley, California

For those who delight in complications and troubles, judging and rating new hybrid irises is a thoroughly satisfying occupation. This rather tactless and sweeping statement will shock many devotees of the flower shows and iris gardens and will cause them to take a new breath before asking why? Doubtless a few experienced individuals will agree with the idea but who can answer the accusations? I shall try. Judging alone, as a basis of awards in competitions, is all very well and not to be objected to or even included in this discussion. But judging by a fixed set of rules, manipulated according to the ideals, experiences, and fancies of enthusiastic flower lovers may result in almost any outcome. Some years ago I rather enjoyed following this procedure; but since entering the more professional field and after having become better acquainted with the finer and poorer products of hybridization I must admit that scoring new varieties as now practiced should be either wholly discontinued or radically changed. No one can study the published results of such symposiums without a feeling of hopeless apathy. Run down the score card if you will. What does parentage mean to the average individual? Is it not conceivable that the mere mention of objectional parents will at once create a dislike or the proud proclamation of some noble lineage carry the beholder off his feet? have no doubt but that the omission of ancestry in many hybridizers' lists is evidence of such conceptions. A flower, like a man, should be judged by what it is rather than by its ancestors and nothing should stand in the way of impartial ratings. A knowledge of parentage is of great value to the skilled hybridizer as a guide to future accomplishments. It might be removed from the scale of points with real advantage to the flower which is being judged, to the hybridizer who seeks fair play, and to the buyer who wants to know the true value of the iris.

Fragrance is another point that is often a source of conflicting ideas. As an evidence I suggest the many exquisite and offensive odors that are prepared synthetically to satisfy the whims of the human nose. The rare delicate odors of a "Maid of the Mist" may definitely register on the sensitive nostrils of one judge and may make no impression whatsoever on the smoke-deadened nerves of another. Perhaps there is no sense so variable as smell and because of this complete agreement, if not impossible, is certainly not translatable. And there are the few who dislike all iris odors and the very great majority who neither know nor care about fragrance. It is true that odor has a great appeal to some who should not be deprived of that pleasure, but it is asking too much of the judges to decide such an effluvious point and I for one would like to see it removed from the score card.

The fifteen points on *Outstanding quality* may make or break the record of any candidate for iris honors. How many of the hundred judges who have scored and rated new and old hybrids are qualified to reckon these points either for or against the subject under consideration. The comments so freely given in our bulletin give sufficient evidence of these claims and need no further substantiation. Such astounding claims as the best red, the finest white, the most outstanding yellow, are only comparative terms to be qualified wholly by the knowledge, experience, and judgment of the claimant.

In checking the last symposium one is impressed by the large number of irises which are scored by only one, two, or three judges. Surely no very important conclusions can be reached with such meager evidence, especially when one considers the vast territory embraced and the varied conditions encountered on this continent. No iris should be rated unless scored by at least five judges over a period of two or more years. It seems to me that if such data is to be of value to the members of our society it should be more representative and, if not the names, at least the addresses of the judges should be included. I rather imagine that if the names were also

printed that more conservative statements would be made. At least the readers would have some basis for their final conclusions.

After all what do the scores and ratings really amount to? If they are inaccurate should they be continued? Are we strengthening or weakening the Society by devoting so much time and printed space to these abstract and variable numerals which can hardly describe or indicate the comparative merits and beauty of a W. R. Dykes, a Desert Gold, a Helios, a Rayo de Sol, or a Lady Paramount—all yellow, but how different!

COMMENTS ON RATINGS

Chas. E. F. Gersdorff

The last two symposiums have destroyed in me all my former love for percentage ratings of flowers. Similar ratings on peonies and gladiolus have strengthened my antipathy toward published ratings and symposiums. When such a well known and conceded to be improvement on an older variety as Sandakan (Williamson, 1930) is over Bruno, cannot obtain a better average rating than the older sort, it is time to call a halt. This is but one of many similar cases at fault. When there is a judge or possibly a very small group of judges working together who cannot give a rating of more than 50 to 60 on modern irises, on which a greater number of judges are agreed on higher evaluations, one either loses confidence in the score card, or in the ability of the low scoring judges or both.

May I suggest that all too often these extremely low ratings are made on plants not yet fully established, often just one year grown plants from a single division? May I cite three cases of my own where this was true? Either my own or those disseminated by me. These were rated in an eastern garden after an observation of one stalk of bloom on plants grown but one winter after setting out of a single rhizome. The rating in each case was 60. Yet another variety grown in a western garden, judged on an established plant, which I do not consider as good as one of those lowly rated in the east, attained 85. May not most of the extremely low ratings to be found, given to varieties rated highly by a greater percentage of judges, be similarly obtained as those on my unestablished plants?

Mr. Duffy suggests that varieties under 70 should either not be introduced if new, or discarded if old, or at least 60 or less. If these ratings are the result of a vote of ten or more judges, I would agree. But as pointed out by me, many of these low ratings were obtained on unestablished plants, and many are the result of only one or many less than ten votes.

Mrs. Peckham once pointed out that sales of iris go on just the same, whether rated highly or not. On the basis of this what value the symposiums?

Mrs. Hires says that each gardener has his own ideal of iris form. This extends to its other qualities as well. Just what is the ideal of the judge who cannot see any modern iris of greater value than 70, with most of them at 50 and 60?

In his comments in the October, 1932, Bulletin, Mr. Sturtevant states that real "Outstanding Quality" has ceased to be a point worth inclusion in a score card. It is in regard to this point where a biased judge can cut heavily in scoring an iris. He tries to visualize its nearest competitor—just how often is he successful? Frankly, I have found it most difficult to compare the new with some existing variety, and as Mr. Sturtevant points out not one of us can know them all. He also states that ratings are of purely temporary value. I would characterize them as most fleeting of value.

I think the society should pull away from symposiums and also to refrain from publishing any ratings whatever. I believe the score card should be improved upon as suggested by Mr. Sturtevant, and used only to determine the eligibility of new seedlings for awards, and these ratings thereafter never to be published. We can have certain varieties as examples of fixed ratings to aid in use of the score card, but for that purpose only, and not to be used as ratings have heretofore.

Let the judgment of the value of various varieties take the form of reports on their behavior in different parts of the country, as in Varietal Notes, by our different members. At time of publication let there be stated under the title the locality from which the report comes together with the author's name. We should then have a judgment on varieties by localities, which alone are fair to the variety in each respective locality. Failures should be reported as well as successes, and the reasons given therefor, if known.

REGIONAL RATINGS?

SAM H. GRAHAM

The current issue of the Bulletin of the American Iris Society has given me more genuine interest than any of the former issues received. It is what I have been looking and hoping for for a long time. This appertains especially to the ratings given by accredited judges. To the average Iris fan I am sure it will afford a degree of assurance that he can purchase the better Iris if he will only follow these ratings. Yet at the same time I must confess that after going over and studying these ratings I am more or less confused. I am writing this merely as an amateur grower but at the same time as one who from year to year has tried to secure the best varieties of Iris especially of the newer sorts. Had I received this Bulletin some three months ago I feel sure my purchases for this season would probably have been materially different from some of the varieties I purchased. Whether for the better or worse I do not know. Any way I would have felt better over my purchases regardless of any personal views I may have had in the matter.

There is no question but that some of our leading growers play up certain varieties in their catalogues that in no manner measure up to their glowing descriptions. I have found this out to my dismay on more than one occasion; to such an extent that now I never place an order from such descriptions unless verified by the opinion of others in whom I have confidence. This applies especially to the newer and high priced varieties. I come now to the purpose of this article. In looking over and studying these ratings is there not a reason for skepticism when you find such wide variance in the ratings: several I note carry a difference of as much as 25 points. Can it be the judges adopted different standards in judging or can it be the locality in which the flower was grown has been the cause? It's no doubt true that some varieties grown in the same garden and under identical conditions carry a far different quality of bloom. Depending upon which bloom the judge might happen to judge would probably depend the rating it would be given. words a flower well grown would carry a much higher rating than one grown under poorer conditions. Could this have anything to do with the wide variance in some of the ratings? It would be very

interesting as well as enlightening to have information concerning these matters.

With not the least thought of criticism I would like to suggest that it would be very enlightening could these ratings be compiled according to the various sections of the country from which they The North, East, South, Mid West, and Far West for example. Then one living in these certain zones could value the ratings more intelligently and better decide in placing his Iris purchases. I, living in the South, would be influenced almost entirely upon the ratings given by the judges of varieties as adapted to my section of the country regardless of what they might be rated in some other section. A great many of our most beautiful Iris carrying mesopotamica and Ricardi parentage and which do well in the South and Far West are practically worthless in some other parts of the country. However, to follow the ratings with knowledge of these facts would cause a doubt which might influence one to pass up some worth-while variety which otherwise would have been purchased had the sections from which the judging was done been known.

Then too it would be interesting to know upon what basis the ratings were given; the scale of points given to the various make-up of the flower. This would be not only interesting but instructive. I feel sure also that it would be a great help if ratings could be given not only as a specimen bloom but also its rating for garden effect; which after all is what a great majority of Iris growers seek for. I know of quite a few varieties that are beautiful as individual specimens but a disappointment for garden planting; especially for mass effect.

I feel the Society is to be highly commended for what they have done in compiling these ratings. They were something not only badly needed but will prove most beneficial to those like me who have been so in the dark when it come to deciding upon their purchases. Nothing I have said is with the least thought of criticism; only suggestions which I feel, were they followed up would be of wonderful help to those not thoroughly conversant with the judges' methods in arriving at their ratings. That with a compilation of ratings into sectional groups similar to that adopted by the American Rose Society would I think leave nothing further to be desired.

RECKLESS RATINGS

J. H. KIRKLAND

The last Bulletin of the American Iris Society contains new ratings of approximately 1400 iris, many of them already in commerce for years, but quite a number being new varieties recently introduced and never officially rated before. It is certainly desirable that these new plants should be given some discriminating stamp of approval at the present time.

All grading heretofore made has been on the percentage basis, and the present ratings are likewise so made. There are two ways of applying this method. In one case the grade of 100 may be considered as representing absolute perfection. He who so interprets it will never give a rating of 100, for there is no such thing as a perfect iris or a perfect flower of any kind. If we begin with the thought of a perfect iris we must admit that this rating is fixed by no visible standard and cannot be tested in any way as a yardstick may be measured or a pound may be weighed. If it were possible to make and hold a standard of absolute perfection then all correct ratings would be stable, and an iris rated at 80 would properly retain that rating through all the years except in cases where we admit that the rating was wrong in the first place.

But if 100 cannot represent absolute perfection we may at least say that it represents the value of the best iris we know; hence every judge is justified in rating some one iris at 100, with proper reductions for others not so good. New varieties will be tested by their relation to the old ones. When a new introduction displaces the best heretofore known by an appreciable amount, say five points, then all ratings previously measured from that high point must show an equal drop and a new rating is therefore necessitated.

By following these rules a single judge may make a fairly good list of values year by year. To some extent this has been done by Mr. Sheets, of Washington.

But there are real difficulties about this whole procedure. The same iris shows different values under different conditions which may result from weather changes, from soil, or climate, or unknown factors of growth. At any iris exhibition the flower winning the highest prize may be one rated ten points below others on exhibition, but in that particular contest a superior stalk of bloom is produced by the iris with the lower rating. There would be no need of exhibitions and prizes if the decisions were already predetermined by mathematical ratings. Furthermore, all judges have prejudices, and in matters of taste no one individual is always right or is entitled to have his opinion accepted by any large body.

Even when three judges rate a new iris the highest and lowest figures may differ by twenty points. In the list of ratings recently published Firegod is rated by three judges, the highest figure being 80 and the lowest 60. It is, therefore, impossible to accept as official any rating made by only one judge. In the list we are discussing it is very unfortunate that so many ratings depend on one, two or three votes. Altogether forty-seven judges participated in this work, but 424 iris are rated by only one judge, 277 by two judges, and 196 by three. Such a procedure is clearly without justification. Somewhere a line must be drawn. It would not be unreasonable to ask that one-fourth of all the judges vote on any proposition of importance. At least a limit of ten should be demanded, and no rating published with less support than that. In the case of the very newest thing it might be difficult to have inspection made by ten judges, and a preliminary rating might be allowed in these cases on five votes to be good only for a limited term, say three years.

For somewhat similar reasons it is insisted that highest and lowest ratings should not be published, but only the average grade. The opinion of no one judge ought to have such weight or be regarded as so important that it should be singled out and made public.

The suggestion that a super-class of ninety-three irises out of 1400 be created on the ground that no one of these ninety-three received a grade lower than 80 lacks every element of justice. Under that ruling Easter Morn, Mary Geddes, Blue Velvet, Dominion, Purissima, and others of equal merit would be excluded from this super-class, while others having a smaller average rating might be included.

The requirement that ten judges vote in order to establish any rating may be difficult. In the present list of 1400 iris only forty were rated by as many as ten judges each, but if this fact proves anything it proves that our whole system of rating is faulty, or that a new set of judges should be appointed, or that the whole

plan of grading individual flowers should be abandoned. Surely the American Iris Society cannot assume responsibility for the figures recently published. Surely the total membership of the Society is not willing to endorse 424 ratings made by one judge each. This is asking too much.

If further suggestions are in order I would recommend the establishment of four classes designated as A, B, C, and D. Class D would include all irises having an average rating from 60 to 69 inclusive. Class C would include irises averaging from 70 to 79; Class B from 80 to 89, and Class A from 90 to 100. No figures should be published in any case, and no iris should be recognized below Class D.

This method of grading has been adopted very generally in colleges where experience has proved it to be impossible to indicate on a strictly percentage basis the value of work done by a large body of students. If this method of individual figuring is unreliable in the business office of an educational institution where there is every opportunity to test values, it is certainly impossible where standards are fixed largely by taste alone, and where judgments are always swayed by pre-conceived notions.

The American Iris Society is getting into an impossible situation as is demonstrated by the tables recently published. This latest exhibition, if to be considered rulings of our Supreme Court, is not creditable either to the court itself or to the American Iris Society as a whole.

PROTEST AND SUGGESTIONS FROM SOUTHERN CALIFORNIA

By Lena M. Lothrop

You have no doubt received many protests re the ratings published in the last Bulletin but I want to make sure one comes from Southern California.

According to my count some 424 of the varieties listed in Bulletin No. 45 were judged by one person only—276 varieties by two judges. There were but 98 varieties with reported ratings from as many as five judges.

Who knows if the stems seen by the single judge were normal stalks on established plants. I am sure some could not have been.

Thus injustice was done to the variety, to the reputation of the breeder, to the careful dealer who selected them for introduction and to the buyer who hesitates to add them to his garden. The judge may also have to recant and the standing of the Society itself is lowered by sponsoring such ratings in its publications. Hasty judgment in all cases, for or against, should be discouraged.

We, in Southern California, are opposed to the publication of ratings of (1) any first year blooms, (2) numbered seedlings, (3) ratings by less than five judges.

We are in favor of Sectional rating. This particular California Section should include only the territory from Berkeley south, the Coast farther north being too cold for tender irises.

Let Nebraska and Massachusetts rate San Gabriel at 78 if it performs 78% as grown there but in our California gardens it is close to a 100% iris and should be so recorded for this Section.

If we in Southern California had the rating of Mr. Sass' varieties they would drop out of the bottom. Sectional rating would show where they could be grown. Any variety receiving low rating in all Sections would quickly disappear. Those rating high in all Sections would increase in demand. A comparison of the ratings from different localities would inform the gardener what varieties he could expect to grow well. The present hit and miss method is of little or no value to any one.

We favor removing the 10 points allowed on our score card for foliage and the 5% for fragrance as not being necessary and also the 15% for outstanding quality.

We like the idea of fixing the value of points in certain irises, as per Dr. Van Name's suggestion, to act as an aid in judging new irises and as a check to tobogganing. San Gabriel, though introduced in 1921, is as perfect today as it was then.

Several important attributes of a fine iris do not appear on our score card among them being "finish," "balance," "proportion of the flower to the stem," and "dependability of performance."

We herewith brazenly offer a score card with these points included.

Flower

Substance, texture and finish	15
Color-clearness, richness or blending of color	15
Form	15
Poise	05

Plant

Vigor1	0.
Floriferousness 1	0.
	0.
6 / 6	0.
±	0

This reflects the opinion of the Southern Californian group which includes Dr. Williams, Miss Hinckley, Dr. Berry, and Mr. Milliken. Ed.

APPRAISING THE CURRENT RATINGS

J. MARION SHULL

When the author was preparing his manuscript for "Rainbow Fragments" it was realized that something else than personal preference must be the guide to selection of varieties of tall bearded Iris to be included in that volume. After considerable thought a more or less arbitrary yardstick was created. This measuring device comprised elements such as the number of judges reporting, the altitude of rating, and to some extent the recency of introduction, et cetera. This yardstick was then conscientiously applied to the American Iris Society Symposium issued in 1928 and resulted in the selected list of some 350 varieties there included. Fortunately the Symposium of 1928 was a fairly serviceable basis from which to operate; much better in fact than the current report, which would but poorly serve a similar purpose though the ratings of the latter are probably more critical than those of its predecessor.

However, to secure the greatest value from the current ratings we may use a somewhat similar method and create as nearly as may be a comparable, if necessarily less accurate, yardstick for our purpose. The great disappointment in the current list is the average low number of judges expressing themselves on any given variety, a defect brought about, at least in part, by the instructions sent to the judges, wherein the rating of newer varieties was stressed rather than enforcing the idea that a revision all along the line was expected.

Now the average voice of 40 judges is certainly much fuller of meaning than that of 5. One may even question the wisdom or propriety of publishing the ratings provided by a single judge, or even the average of but two. In the current list the published rating depends upon one lone vote to the extent of 423 varieties;*

^{*} The editor has not checked these compilations nor does he consider minor errors harmful to the underlying principles. [26]

on only two votes for 274 more; and only 39 varieties have been rated by as many as 10 or more judges, the high point having been reached at 19 votes on Selene. One can not but wonder how it happened that this particular variety secured the attention of the largest number of judges, rising two counts above any other of the 9 that were lucky enough to get the attention of 15 or more judges! Thus it is obvious that, as compared with the preceding Symposium, the present publication is not nearly so satisfactory.

In an effort to arrive at its real value I have again created a vardstick, on the following lines: One vote meaning nothing unless one knows the idiosyncrasies of the individual voter, I shall omit all varieties so meagerly vouched for; two being but little better, let us omit them also, thus reducing our list by 720 at "one fell swoop." Three judges, all agreeing in exceptionally high marks, marks however that are all but sure to suffer drastic revision later on, may serve as our starting point in this case, so we will include all varieties that 3 or more judges have rated at 90 or above; all that 4 or more have rated at 85 or higher; and all that 5 or more judges have pronounced worthy or 80 or more. Applying this yardstick we find only 179 varieties remaining to represent the "cream" of the list. Had the measure been extended on the same principle to include all those that 10 or more judges considered worth 75 or more, it would have added but 7 more to our preferred list, and would still leave the results quite inadequate.

The Associate Editor in charge of the Symposium seems to argue that most of the varieties rated five years ago are headed, and in his opinion properly, for the discard, as indicated by their relative importance in the present report. This I can not accept to any great extent. My prediction would be that probably not one in ten of the introductions of the last three years will survive, and certainly a considerable number of the older varieties will remain in our gardens for many years to come. It is quite unthinkable that such extreme changes as may be cited from the two lists are to be maintained. Here for instance is San Gabriel, formerly holding the proud rating of 84 at the hands of 25 judges, now relegated to a 75 on the authority of one lone vote! White Knight, small but lovely, rated by 34 at an average of 80, now depressed to an insignificant 66 by the vote of 4! These are extremes of course, but there are many such discrepancies of only lesser degree.

I realize that the new but more exacting score card, conscientiously applied, would presumably lower by some extent

nearly all the older high ratings. But by the same token such a rating as 100 is absolutely out of the question and could not possibly be attained by any reasonably close application of the detailed scoring to the best of the new things offered. We judges all have our idiosyncrasies, weaknesses perhaps. Some of us habitually let our enthusiasm run away with our better judgment and rate over high. Others hit hard and continually harder as the ever rising flood of new arrivals threaten complete deluge. Some of us, unconsciously perhaps, may be too susceptible to dominant showmanship in the garden. There is at least one high point that can hardly be accounted for on any other basis. Then some judges tend, perhaps again without knowing it, to throw off a few points merely for age regardless of quality, just as at one time they would have added a few points as a tribute to importation. This discount for age may also be furthered by the fact that the widely distributed and therefore inexpensive variety tends to be neglected as compared with the petting lavished upon the very expensive latest novelty.

Absolute impartiality and freedom from bias is difficult for any judge to attain, but when sufficient numbers are involved, all these idiosyncrasies, even an occasional willful, malevolent rating, if any such there be except in an overheated imagination, tend to be leveled out, one extreme canceling another, and so the final result becomes reasonably trustworthy.

There are those who would advocate doing away with the idea of a Symposium altogether. I still think a Symposium can be a very helpful and worth-while feature of our work. It only needs that a larger number of judges express themselves to make the work really valuable as a general guide. To be sure there are seemingly unavoidable weak spots in the scheme. At present there is no way of recording the fact that a given variety may deserve an exceptionally high rating in one general region and be quite mediocre in another, a fact that ought not to militate against its wide acceptance and appreciation within the region of its best behavior, but probably the percentage of varieties falling within this handicap is after all not a very large one. If a situation could be brought about wherein all varieties were rated by five or more and a great many by twenty or more I am sure the resulting Symposium would have very real value. As it is now the published ratings are based on information entirely too meager.

HOW WERE THEY JUDGED?

By Robert Wayman

The surest way to arouse public interest in a thing is to have it done in the worst possible manner; then there is a stampede for improvement. From this standpoint the recent Symposium (I notice Mr. Duffy presents it as such in the Bulletin) should be a huge success. I do not agree with Mr. Duffy's statement in presenting this Symposium that "as these ratings were made by accredited judges, and, for the most part, judges of wide experience, even single ratings have value." How can we seriously assert that single ratings have any value when we realize that if we had but a single rating on Pink Satin it could have been either 97 or 59, Thuratus 92 or 50, Violet Crown 90 or 57, Virgin Gold 84 or 50, Peerless 81 or 50, Red Radiance 89 or 65, Jadu 85 or 50, Hermitage 89 or 62, Zuni 81 or 50, Impressario 88 or 50, M. A. Porter 88 or 57, Romance 84 or 55, Newtonia 86 or 52, Serenade 90 or 52, Thais 86 or 50, Selene 90 or 62, to mention only a few. All of these are rated from "worthless" to "fine" or "very fine" by different judges. There is something fundamentally wrong with a system that permits "judges of wide experience" to turn in such divergent reports. Surely a single rating, or two ratings on a variety, are worse than valueless; they are misleading, therefore they should not be published. Any one of the above mentioned varieties would suffer a grave injustice if the juror making the low rating were the only one rating them. In fact, how could any number of such ratings, jumbled together and averaged up, mean anything? Why should we go upon the theory that a lot of inaccuracies are permissible because, by some sort of legerdemain, a lot of "wrong" ratings will average up "right"? Why not rather change the rules so that the judging by different judges will be done under more nearly uniform conditions?

Under the present system Judge Number One steps into a garden for the first time and sees a plant of Pink Satin. He has never seen this variety before. And Oh Boy! it has a flower on it! "But," he is told by the owner of the garden, who lives in the garden and knows, "this cannot be a typical flower; it cannot be the flower I have heard so many people raving about. The plant

was only set out last fall and has not had an opportunity of becoming fully established. It is short of stature and of ordinary size. Give it a chance." "No" replies the judge, "I will make allowance for the facts you mention," perhaps adding to himself "I am here and I must give the flower some sort of rating as I see it." And so, after mature deliberation he puts down a rating of 60. Another Judge, seeing it under favorable conditions on a two year plant rates it 86. Would the average rating of these two, 73, mean anything? Of course not. I may say that if I were judging Pink Satin the first year after planting I would have to rate it about 60, but I hope I have better sense than that. Seeing it in my gardens this year on an established two year old plant, no one could rate it under 80. In fact, I never make notes on a new Iris until the second year after planting. How can you "make allowance" when judging an Iris? And what do we mean by "making allowances"? Drawing upon one's imagination as to what it might look like under different conditions? That isn't judging. Fancy a judge in a beauty contest judging a subject who is just recovering from a major operation. And transplanting an Iris is a major operation so far as the Iris is concerned. It must be allowed to fully recover before it is judged. No Iris should be judged until the second year after it is planted.

Judge Number Two and Judge Number Three are en route to an Iris Show somewhere, and one suggests that they may as well stop at So-and-so's garden and do some judging. "True, the season here is two weeks earlier and the flowers are 'at their worst'; there has just been a terrific storm and there are only a few bedraggled, half withered flowers left, but we can't make a special trip to be here at the height of the season, and now that we are here we can't just walk away, so we'll 'make allowances'." Together they proceed to put a lot of 50 and 60 ratings on some really fine varieties that other equally capable Iris enthusiasts, who are not official judges, have rated at 80 to 90. They put ratings on a couple of very ordinary unnamed seedlings that the originator had no thought of introducing, and fail to rate many fine seedlings because they had finished flowering. Since there were two judges working together under identical conditions the Symposium showed two unfavorable reports; and, being the only official judges reporting on these varieties, their ratings commit murder. One of the two judges is shown a white Iris in the same garden. A casual look is ample

and he remarks that there are so many fine white Irises being introduced that new ones should not be introduced unless they are very Even "making allowances," it is not worthy of careful scrutiny or an examination of the label. When attention is called to the fact that this is Wambliska, the judge, who knows Wambliska well, but failed to recognize it, explains that you really must not judge Wambliska by this showing, because Wambliska is a very wonderful white Iris. Silly, isn't it? This same judge was judging every other Iris in the garden under these same conditions; but he has lived with Wambliska, has seen it at its best, and would probably correctly rate it about 85 or 90, yet he would not rate this flower in front of him over 50, not knowing it is Wambliska. It is not only a one year old plant, but it is seen after a storm at the end of the Iris season, and probably "at its worst." An Iris should be judged only at its best. No Iris should be judged if it is being grown under unfavorable conditions. An unintroduced and unnamed seedling should only be judged with the consent of the originator, since he may have no thought of introducing it and may merely have it under observation for some special reason.

Imagine a judge of dogs visiting a kennel and judging every dog in the kennel; it isn't done, of course. Neither is a dog exhibited for judging unless he is in the pink of condition.

Judge Number Four rates all his own introductions. They have not been rated by any other judge, and since he would not introduce anything that did not in his opinion deserve a high rating, all of his introductions are rated in the 80s or 90s. Judge Number Five refuses to rate his own introductions, because he knows that it is against the rules of the game for a man to act as judge and jury at his own trial. But he does not have a jury of twelve to decide his fate; a judge who is going around rating nearly everything in the 50s and 60s, with a mania for rating regardless of time or season or condition, comes along some gloomy morning and single handed and alone consigns his introductions to oblivion.

No introducer should rate his own introductions.

No ratings should be published unless the variety is voted upon by at least five judges, and no rating should be official until voted upon by ten judges in one or more seasons.

One Judge rates Dreadnaught Bralliar at 50, although in my gardens this season it compared favorably with Dauntless in height, size and color. The gorgeously magnificent Don Juan is rated by

one Judge at 65, while the mediocre Bealdor is rated 85. There should be some common ground upon which these ratings can be made, because if inferior varieties are to be rated much higher than superior sorts, of which value are the ratings?

It is my opinion that one must live with an Iris to judge it properly. Don Quixote is a beautiful Iris of its type when it first begins to flower, and the lone Judge who rates it at 89 would probably be justified. But seen a week later it will be found sprawling all over the ground and every stalk will have to be given some sort of support. To me such an Iris becomes worthless when there are so many that do not require this treatment. This would seem to conflict with my statement that an Iris should be judged at its best, but that statement should be taken along with the other one that the judge should live with an Iris to rate it; he should either grow it in his own garden, or he should be so located that he has access to some garden where the varieties he rates can be watched by him during the season, and he should rate only varieties that he can have under constant observation. How can one otherwise judge "vigour," for instance, which covers ten points in the rating? Certainly you cannot walk into a garden and see a variety for the first time and tell with any degree of certainty whether it is vigorous or not, whether at certain times of the year or with certain climatic conditions it requires a nursemaid in constant attendance. I wonder how three Judges rate W. R. Dykes 93, 94 and 89, since ten points should be considered for vigour and ten points for floriferousness. Most of those who originally imported W. R. Dykes lost most of the plants before they learned how much coddling this variety requires. Some still grow it in cold frames and I presume every one gives it winter protection; and it certainly isn't a rapid propagator; neither is it a reliably free bloomer. these facts are to be ignored, why have them on the score card? W. R. Dykes would lose ten points on the question of vigour alone. and at least another five points on the question of floriferousness. And how should it be rated as to color, since sometimes it is clear and sometimes it is spotted?

(To be continued.)

NEW ENGLAND RECOMMENDS VARIETIES

At the instance of Mrs. Thomas Nesmith, the Regional Vice-President, and with William J. McKee, the originator of Royal Beauty, as Chairman, a dozen of our A. I. S. judges have instituted a series of meetings for discussion. In addition to making certain recommendations to the Meeting of the Directors they have selected a group of varieties that have proved their value in New England and in price will fit the pocketbook of the amateur or will awake the envy of the specialist.

Unlike the Committee on Awards who have centered their attention on American varieties New England has selected irises of varied origin but of sufficiently dissimilar color to satisfy the needs of the average garden. Variations of height were especially considered but variations in season await further discussion. It is hoped that other regions will group together in similar discussions and reports.

WHITE.

Standard Varieties. Shasta (Mohr-Mit. 1927) Snow White (Sturt. 1926) White Queen (Gey. 1918) Zada (Emig. 1926) Novelties. Easter Morn (Essig 1931) Polar King (Donahue 1930) Venus de Milo (Ayres 1931)

NEAR WHITE.

Ambrosia (Sturt. 1928) Santa Fe (Mohr-Mit. 1930) Wambliska (Sass--J. 1930)

WHITE PLICATA.

Alameda (Mohr-Mit. 1927) Lona (Sass—J. 1923) Los Angeles (Mohr-Mit. 1927) True Charm (Sturt. 1930) True Delight (Sturt. 1924) Anndelia (Sturt. 1929) Pink Jadu (Sturt. 1931) Sacramento (Mohr-Mit. 1929)

AMOENA.

Duquesne (Hall 1923) Mildred Presby (Farr 1923) Rhein Nixe (G & K 1910) Cantabile (Wmsn. 1930) Dorothy Dietz (Wmsn. 1929)

YELLOW (Self).

Bonita (Mohr-Mit. 1928) Coronation (Moore 1927) Golden Glory (Jack.—H. 1927) Gold Imperial (Sturt. 1924) Yellow Moon (Sturt. 1923) Desert Gold (Kirk. 1929) Gold Standard (Edl. 1928) Pluie d'Or (Cay. 1928)

VARIEGATA

Cameliard (Sturt. 1927) Flammenschwert (G & K 1920) Rialgar (Sturt. 1924) Beau Sabreur (Wmsn. 1930) Henri Riviere (Mil. 1927) King Juba (Sass—H. P. 1930) Picador (Mor. 1930)

[33]

PALE PINK.

Airy Dream (Sturt. 1929) Frieda Mohr (Mohr-Mit. 1926) Rheingauperle (G & K 1924) Serenade (Hall 1926) Trostringer (Sass—H. P. 1926) Wild Rose (Sturt. 1921) Thais (Cay. 1926) Pink Satin (Sass—J. 1930)

PALE LAVENDER.

California Blue (Essig 1929) Mary Barnett (Cumb. 1926) Princess Beatrice (Barr 1898) Santa Barbara (Mohr 1925) Sensation (Cay. 1925) Souv. de Loetitia Michaud (Mil. 1923)

Asphodel (Mor. 1920) Blue Banner (Kirk. 1929) Blue Hill (Sass—H. P. 1931) Summer Cloud (Kirk. 1931) Yves Lassailly (Cay. 1928)

LIGHT BLENDS-Yellow Predominating.

Cameo (Sturt. 1924) Elsinore (Hall 1925) Sonata (Wmsn. 1929) Vesper Gold (Wmsn. 1927) Allure (Mur. 1927) King Midas (Mead 1929) Mary Geddes (Stahl-Wash. 1931) Nepenthe (Con. 1931) Rameses (Sass—H. P. 1929)

LIGHT BLENDS-Pink Predominating.

Midgard (Sass—H. P. 1926)

Clara Noyes (Sass—H. P. 1930) Mrs. Herbert Hoover (Home. 1930) Newtonia (Don. 1930) No-we-ta (Sass—H. P. 1932) Nusku (Nes. 1928)

MEDIUM TO DARK BLENDS.

Ambassadeur (Vilm. 1920) Bruno (Bliss 1922) Cardinal (Bliss 1919) Dolly Madison (Wmsn. 1927) Glowing Embers (Sturt. 1923) King Tut (Sass—H. P. 1926) Mrs. Valerie West (Bliss 1925) Depute Nomblot (Cay. 1929) Evolution (Cay. 1929) Persia (Ayres 1929) Vishnu (Sturt. 1930) Zaharoon (Dykes 1927)

RED AND RED BLENDS.

Andante (Wmsn. 1930) Cinnabar (Wmsn. 1927) Morning Splendor (Shull 1923) Montour (Hall 1925) Red Wing (Sass—H. P. 1926) Seminole (Farr 1920) Dauntless (Con. 1929) Grace Sturtevant (Bliss 1926) Hernani (Cay. 1929) Indian Chief (Ayres 1929) Jeb Stuart (Wash. 1932) Joycette (Sass—J. 1932) Motif (Sturt. 1931) Red Radiance (Grinter 1932) Rose Dominion (Con. 1931)

DARK RED PURPLE.

Katherine McFarland (Spit. 1926) Majestic (Bliss 1923) San Diego (Mohr-Mit. 1929) Tenebrae (Bliss 1922) Magenta (Cay. 1927) Melchior (Wal. 1927)

MEDIUM TO DARK BLUE PURPLE.

Baldwin (Sass—H. P. 1927) Bonnie Blue (Sturt. 1927) Souv. de Mme. Gaudichau (Mil. 1914) Swazi (Bliss 1922) Tid-bit (Sturt. 1925) Tom Tit (Bliss 1919) Van Cleve (Van Name 1927) Wedgewood (Dykes 1923) Zulu (Bliss 1925) Black Wings (Kirk. 1931) Blue Velvet (Loomis 1929) Meldoric (Ayres 1930) Royal Beauty (McKee 1931) Sir Michael (Yeld 1925)

INTERMEDIATE AND FALL BLOOMING IRISES

DR. H. H. EVERETT

In looking over the field of intermediates and autumn blooming tall bearded Iris, I find so much of interest and such a profusion of varieties that I am at a loss just where to begin and where to end.

Twenty odd years ago Mrs. Everett began our Iris garden with an exquisite pallida of pleasing fragrance. This is still the background for all our beds, and is a splendid foil for the varied colorings of our later plantings. Its lovely odor fills all the gardens on still spring nights.

A few years later we built where we could indulge our love for lovely blooms more fully.

We acquired some hundred varieties of Iris from Mr. Farr, which represented the best at that period. These grew and increased and spilled over on the adjoining lots and into other gardens.

We were perfectly contented until we learned of two farmers near Omaha who were doing things with Iris.

Mrs. Everett and I decided to drive up and see what it all meant. This occasion of our first visit to the Sasses, thirteen or fourteen years ago spelled my downfall, for while Mrs. Everett has matched me in enthusiasm, she has not always been entirely in sympathy with my extravagances!

At first, each year meant a pilgrimage to the Sass Gardens—now it means as many days as I can crowd in while Iris are in bloom. Only an Iris enthusiast can understand what acre after acre of new seedlings can mean. The best of the gleanings of all these years are in my garden where they can be compared with the best from all the other hybridizers.

Naturally these repeated visits coupled with a mutual love for the beautiful led to a close friendship with these two remarkable men. It led also to an appreciation of their high aims and ideals, their love of beauty for beauty's sake, and their profound knowledge of the whys and wherefores of genetic relationships.

It isn't their work with the tall bearded Iris that most interests me. Their crosses of dwarf bearded and later blooming types, and their work with autumn flowering bearded Iris seem the most fascinating. Each year has seen a marked improvement in the varieties achieved. This improvement is especially noticeable in those characteristics which make or break a new variety, substance, clarity of color—sufficient height for size of bloom—well branched stalks to display the many flowers which are of good form.

Up to the present about all that could be said for the intermediates was that they filled in the time between the dwarf bearded and the later tall bearded forms.

I noticed in two rather complete lists of intermediates, one from Mr. Schreiner listed as "Early Bloomers," the other from Robert Wayman, that they include such species as Cretan, kochii, Florentina, Alba, germanica major, and Istria; together with the early crosses of Caparne, and Goos and Koenemann; also the later introductions of Mr. Dykes, and still later the Murrells', a few from the Sasses, with scattering ones from here and there. Taken as a whole a rather sad lot, poor doers prone to rot, muddy colors, badly bunched on the stalk, with sloppy, floppy falls and standards.

Kochii in many localities is a poor doer, while Caparne's and Goos and Koenemann's introductions should be discarded by every one because of their inferior quality and poor coloring.

Dykes has a particularly pleasing dull blue, Charmian by name—very floriferous, the flowers daintily poised on well branched stems. It is interesting as one of the very few alberti hybrids in commerce. Plant and flower are somewhat of the habit of Miss Sturtevant's Tintallion.

Octavia and Lulworth are just blue Iris. Sapphid I have not seen but when one considers that the newer intermediates equal the best of the recent late blooming tall bearded types, it would have to be exceptional to compete with the products of our Nebraska prairies.

The Murrells seem to be on the right track with Moonbeam and Sunbeam, but yellows are easy to get in intermediates. In fact it is only among the intermediates that yellow is yellow.

The new classification dispensing with this artificial intermediate class is well conceived. My own conception of an intermediate

is that of dwarf bearded x tall bearded. Usually this cross produces great variation in form, from dwarf bearded up to tall bearded, 36 or more inches in height. The time of bloom naturally varies because of the ancestry.

The name intermediate has carried a certain amount of stigma due to the mediocre quality of plants in this class as generally known.

I had the pleasure last year of seeing a row of Purissima x self seedlings in Jacob Sass's upper field. The variation was startling, all heights and sizes; many dwarf bearded were unmistakable, while some plants showed mesopotamica in color, height, and sinuous weak stems, frank evidence of recent pumila and mesopotamica ancestry.

Going still further with Mr. Wayman's list, I am sure we can do without Primavera, the skidding Soledad, Yellow Hammer, Languedoc, and the rest. I have not seen Gnome (Bliss), but from the description it may be promising. Srinagar (Dykes) can be bettered, I am sure. Zua and Zwanenburg are curious things, of no especial beauty, and belong only in a collector's garden.

The Sass named intermediates in commerce are far too few, and do not represent a fair selection from the many worthy ones. This speaks well for their conservatism, but is hardly fair to us and our gardens. In choosing from the seedling rows one can run the whole gamut of the chromatic scale, with better, purer, clearer reds, blues, purples, whites, and yellows, than are found in any other class of Iris. Selfs and bicolor abound, with here and there a blend and variegata.

It would be unwise to give a complete list of the Sass intermediates, so I have chosen some of the better ones.

In a recent letter from Mr. Hans Sass, he says:

"With a few exceptions the intermediates are vigorous and hardy. Some are rather rampant, like Nymph which I do not like so well."

It will be noted that many of the autumn bloomers are also intermediates.

Note: As it is contrary to our policy to publish catalogue descriptions and as there has been much criticism of rating seedlings under number the following is an abstract of Dr. Everett's text and comments on numbered seedlings have been omitted. His ratings vary from 78 to an occasional 90 and you may remember that others

rated certain of the Sass seedlings even higher as reported in the October bulletin. In height the varieties range from the sixteen inches of Autumn Queen to the thirty of Ambera or the thirty-two to thirty-six of Better Autumn King. The average would be close to two feet.

Among the yellows are Ambera, Cyrus, Doxa, Nymph; Autumn Queen is a small white while Alice Horsefall, Ragusa, Challenger, Chief, and Nyx vary from red-purple to dark blue-purple. The seedlings under number suggest an even greater range from white and lemon chrome yellow to variegata and rich livid brown blends with others of violet carmine (Ridgway) which are the nearest to red among the intermediates.

"Some splendid things have been added to our list of autumn iris, embodying better height and carriage with fine branching. The colors are clear and are no longer confined to blue, white, yellow or red-purple. What the next few years will bring forth I do not know but I am confident that we will see many of the better types which are so admired in spring carry a burst of bloom in the autumn.

"It must be noted that in order to obtain autumn bloom, full sun, water, ample room to form clumps, and thorough cultivation must be provided.

"It has long been known that certain pumila hybrids carry the characteristic of dependable fall bloom. The crossing of these with the tall bearded type gives certainty of good height and size among the autumn bloomers.

"Mrs. Hires writes me that Chalice (Sturt) is a dependable fall bloomer in her garden. Chancelor Kirkland wrote that he had a Crusader cross that was good also. I feel sure there must be more irises with this habit in many a hybridist's plot and these should be brought to light." (The old John Foster, a charming thing, and Glee both flower late.—Ed.)

The named Sass seedlings are as follows: Autumn King, Better Autumn King, Autumn Queen, Golden Harvest, and Ultra, the last a very blue iris. Among the seedlings which include only two of Cardinal x Autumn King parentage (the total progeny was 98) there are many rich prune and mulberry purples, of which five are worthy of a name.—Ed.

AT THE BOSTON SHOW*

MRS. HORATIO GATES LLOYD

At the Annual Meeting brief speeches or comments on new iris and outstanding varieties seen in various gardens were made from the floor by members from Nebraska, Texas, Oklahoma, Washington, D. C., Pennsylvania, Massachusetts, Louisiana, and Connecticut. That evening there was a dinner at the Copley Plaza presided over by Mr. Richardson Wright—followed by five minute remarks on the "Lighter Life of the Iris" so to speak.

On June 9th cars took the members to see near-by nurseries where outstanding collections are to be found,—Mrs. Thomas Nesmith's at Lowell, T. F. Donahue's and Miss Sturtevant's at Newton Lower Falls. As iris is quite the most difficult of flowers to transport and looses much by being seen indoors there is great gratification in seeing varieties "on the hoof" as it were. For the benefit of the arriving members of the Society a travelling schedule had been arranged showing how members could see gardens or nurseries en route, both the New York and the Brooklyn Botanical Gardens were worth a visit and Mr. Robert Wayman's collection at Bayside, Lond Island, drew many. Mr. and Mrs. Zalmon P. Simmons' marvellous iris garden at Greenwich with its great sweeps of color was opened for the A. I. S. on June 4th, and at New Haven, Mr. John B. Wallace's garden was to be seen. Mrs. L. W. Kellogg's collection at Hartford is one of the largest, particularly in its showing of the newer varieties and at Springfield is one of the A. I. S. Display Gardens. Mrs. Homer Gage opened "Iristhorpe" at Shrewsbury where so much that is fine can be seen.

The A. I. S. schedule was very comprehensive and to the iris lover most educational and pleasing. Some one worked over that list—divided into six groups with from two to seven classes each, there was a class for any one, professional or beginner. The prizes were rhizomes of fine iris donated by growers and there was a generous sprinkling of silver and bronze medals for points. In the Massachusetts Horticultural Society's classes they ran silver and gold medals but they required at least eighty or sixty points—an

^{*} Extracts from the Bulletin of the Garden Club of America, No. 22 (Fourth Series), July, 1932.

excellent ruling that keeps a medal from becoming cheap. There was a class for new seedlings but no award was made, none being of outstanding merit though several were interesting, probably Blue June (Donahue), a strong yellow with velvety falls of good substance, and one dark seedling. Three stems were required and many exhibitors discarded this rule.

The A. I. S. collections and specimens were shown in one hall, the large hall was given over to iris gardens. The "classes for artistic arrangement" for garden clubs were shown in shadow boxes, and those for individuals were placed at different strategic points where they added to the effect. The labeling was excellent, this applies everywhere, and it was entertaining to note the number of people with baskets or shoe boxes holding heads of iris that they were busily "matching" to the exhibits. And the note books!

As many of the exhibitors were the experts of the iris world, the best and newest varieties were shown, both single specimens and collections. Among the winners were Polar Cub, San Francisco, San Diego, Blue Velvet, Van Cleve, Persia, Pink Satin, Shiawassee, Indian Chief, Asia, Mary Geddes, Mrs. Valerie West, Bruno, Pluie d'Or and Coronation, Cameliard and Citronella as firsts and seconds in their respective classes. The silver medal of the M. H. S. was given to a finely grown stalk of Asia (Yeld 1916) for the "finest flower, one spike" as shown by R. T. Paine. And a beautiful thing it was with height, color, and four blooms.

In the largest room were arranged the "Little Gardens with Iris Predominating," not less than 100 square feet, and a second class of fifty to sixty square feet. (Miss Florence Nesmith arranged a particularly telling special exhibit about a pool as a terminal feature to the open center of the hall.) These were arranged by various garden clubs in such a way as to present the effect of a connecting and harmonious border of planting along the sides of the room. The committee in charge of this most outstanding arrangement was Mrs. Clement S. Houghton, Mrs. J. Wells Farley, and R. S. Sturtevant, assisted by the chairmen of the various clubs. Owing to the National Federation meeting it had been most difficult to get these exhibits and great credit is due to those who achieved it so admirably.

The Milton Garden Club, Mrs. Kenneth Miller, won their first. Tall white palings were placed against the wall and a green door filled the side space to which a path of flat stones led diagonally.

A border of pale purple pallidas made a fine note against the white fence and the color was repeated by a clematis trailed over the fence next the door. White siberians were used in effective clumps, a bush of kalmia at one side and day-lilies, yellow pansies, ranunculus, and veronica made color notes. The Hingham Club, Miss Barben and Mrs. Prouty, got second with a lovely bit of semi-wild planting, a bank of real grass was surrounded by bittersweet vines and a weeping cherry in leaf. (All these gardens had a background of evergreens to hide the brick wall and to divide the exhibits.) A round bird bath was tipped to drip into a tiny sunken pool and all about were placed clumps of white *Iris Sibirica*.

Noanett, Mrs. Lindsey Loring, used the charming "Boy with Faun" placed high above square marble stepping-stones while Chestnut Hill placed a semi-circular pool on the first level with a drooping young willow just opening above it and irises on three grass terraces beyond. Mrs. Homer Gage received a silver medal for her delightful garden.

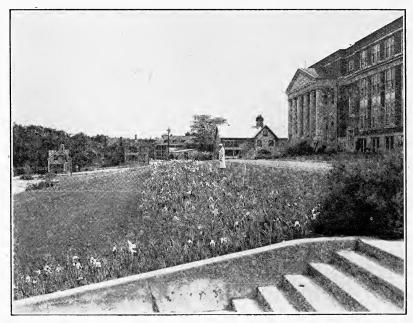
Probably the most interesting and remarkable exhibition was the collection of native wild iris from Louisiana and their hybrids.**
Here were fifty-three specimens shown varying in color from orange red or apricot to terra cotta, from old rose to deep reddish violet, from vivid purple to maroon. The form was open and narrow as to falls, the texture was velvety and the stems and leaves sprawled a bit. Mrs. W. H. Peckham had arranged the exhibition, having the flowers sent by airplane from New York and the effect they gave in the dull green jugs was very beautiful. Standing as they did on raised steps they were easily studied and always surrounded.

ROSE DOMINION (Con. 1931)

This iris in many respects shows its relationship to Dominion, but fortunately these ways are among the qualities that made Dominion an outstanding iris and none of them the faults that have brought criticism upon that variety. In Rose Dominion we have heavy substance in the standards which are held closely together at the apex, and extreme richness of color in the falls without fading at the edges. The shape of the flower is typical of Dominion in the flat, outspread falls, but whereas Dominion often retains the curled

^{**} Plants of many forms are available from Southern Biological Supply Co., 517 Decatur St., New Orleans, La., and from Royal Iris Gardens, Camillus, N. Y.

over edges without full expansion, Rose Dominion never does this beyond the first day a flower is opening and then only in very dry weather. The length of time an individual bloom stays open is remarkable, three days, an improvement we are beginning to find in the best of the newer irises. The color, a deep "American Beauty" rose, which is slightly lighter the last day, makes the name a perfect one to describe the variety. The standards are lighter than the falls and of a satiny texture. The originator says that he thinks there are but two features in favor of this iris. The first of these is the brilliant gold beard and glow of golden light from



Iris Display Garden, Concord, N. H. $\,$ Plants set July, 1931. Photograph taken June 6, 1932.

the centre, which makes a marked band of gold when Rose Dominion is seen growing in a fair sized clump. This lends much brilliancy to the effect and such an enlivening touch is rare in a deep rose-red iris. The other feature is in the type of flower which holds its horizontal falls so flat that the reverse of them is practically never seen and this is also a very unusual thing. Fortunately, the iris is of the right height for such a style of bloom, high enough for the size of flower, but not too tall, so one sees the edges only and loses the real mass of color as is so often the case in an outspread flower.



Rose Dominion (Con. 1931) "developed into a real beauty." [43]

Dominion has the bad characteristic of turning its buds in towards the stem and holding the flowers too close. Rose Dominion is finely branched, has good foliage and enough buds to carry on a fairly long season of bloom. In Mr. Connell's opinion this iris never gives of its best in a garden until there is enough of it to show six blooming stalks, but as it is a prolific bloomer one would not need many plants to obtain this goal! The stalks are sturdy and on the stiff side, so it makes a rather formal effect and one could hardly use the word graceful in relation to it, but there is no doubt that it is an iris of *character* and one that has a definite place in the gardén picture. A CARDINAL derivative, the complete actual parentage is unknown. Mr. Connell had studied Rose Dominion for about five years before he decided, under the advice of Miss Sturtevant, to introduce it to commerce in 1931. The award of Honorable Mention has been received this year (1932) from the American Iris Society and it is officially rated at 87, fourteen judges having sent in ratings ranging from 96-80. Having six recommendations from judges for Honorable Mention, two for A.M. (for which it was not eligible, as a variety has to hold an H.M. to get it) and being outranked by four irises only which were voted on by as many judges, there is no doubt that we have here an outstanding American iris. Perhaps a failing may be that it weakens itself by over blooming and it is possible that is the reason the stock is so small, for there is very little of Rose Dominion to be had. The pencil drawing shows parts of one stalk on the first day before the flowers were fully expanded and it was made from a plant suffering from drought.

An Apology from "Over-the-Garden-Wall"

A word of explanation seems to be in order;—or shall it be apology? The fairly representative planting here, of new American introductions, served as a workshop this season for several judges. It is only fair to the originators of these irises, and to the A. I. S. generally, to state that much of the first-year planting should not have been used for rating. The latter part of the summer of 1931, and all the fall, were exceptionally dry in Hartford, as was the spring of this year. We had summer weather in January that started many blossom stalks which were injured by the later cold. The combination made the showing of new irises the worst we have had for several years. And we greatly regret the outcome, as shown in the last Bulletin.

Mrs. L. W. Kellogg

INTRODUCTIONS, 1932

REGISTERED and APPROVED names in capitals, **species** in bold lower case, unapproved names in lower case, *Synonyms* in *italics*. The square symbol denotes fragrance.

ABITIBI. Sib-BIL (Preston 1932); Kellogg 1932; (Sibirica maxima × Snow QUEEN).

ABNAKI. Jap-Dbl-1 (Nes. 1932); R., 1932.

ACUSHLA. TB-FF-S3M (Thom.-W. 1932); Kellogg 1932; Achushla; Achusla.

ADMIRAL. Eng-B7D (San.-L. W. 1932); Cooley 1932.

ADOBE. TB-S9L (Wmsn. 1932); Long. 1932; R., 1931.

AHALYA. Sib-R1L (Nes. 1932); R., 1932.

AINTABENSIS. Ret- (Baker-G. P. 1932); Hocker 1932; Gard. Chron. 3rd. Ser. 89: 137. 14 Feb. 1931; Gard. Ill. 53: 557. 12 Sep. 1931; Yr. Bk. Iris Soc. (Eng.) 62. 1931.

Alabama (Essig); CHOCTAW.

ALCHEMY. TB-Y4M (Wrhm. 1932); Cooley 1932; Kellogg 1932; Nes. 1932; R., 1924.

ALENESFORD. Eng.-B7L (San.-L. W. 1932); Cooley 1932.

Algonquin. Jap. (Barber 1932); APPLAUSE.

ALICE HORSEFALL. IB-S7D (Sass-H. P. 1932); Sass-J. 1932; Kellogg 1932; R., 1931; *Alice Horsfall*.

AL-LU-WEE. TB-Y9M (Sass-H. P. 1932); Sass-J. 1932; Kellogg 1932; Nes. 1932; R., 1931; (Nebraska × Rameses).

ALTIORA. TB-B1L (Bliss-Sturt. 1932); Sturt. 1932; (RALEIGH × GABRIEL). AMORET. Jap-Db1-4 (Nes. 1932); R., 1932.

ANDORRA. TB-R3L (Tobie 1932); Tobie 1932; Kellogg 1932; R., 1931.

APPALACHEE. Fulv-hex-R3M (Wash. 1932); Nes. 1932; R., 1932.

APPLAUSE. Jap-Sg1-7 (Barber 1932); Algonquin (Barber).

Appolo. Jap-Db1-1. Tur. 1932.

APRIL GOLD. IB-E-Y5 (Richer 1932); Kellogg 1932; R., 1931.

ARABIAN. Jap-Sg1-6 (Barber 1932); R., 1932.

ARABIAN PRINCE. IB-MF-S6D (Sim. 1932); R., 1932; H. M., A. I. S. 1930; (Gamalia \times Cardinal); \square .

ARKANSAS. Hex-Y7M (Essig 1932); R., 1932; (fulva × Dorothea K. Williamson).

Asahi-minato. Jap-Db1-6. Chugai 1932.

ASHTORETH. TB-Y41 (Beaudry 1932); Kellogg 1932; R., 1930; H. M., A. I. S., 1930; (Yellow seedlg. X GOLD IMPERIAL); Astoreth.

Asigasa. Jap-6. Maxwell 1932.

ATIRA. TB-MF-Y4L (Wmsn. 1932); Long. 1932; R., 1931.

AUBURN GLORY. TB- Stone 1932.

AUREX. TB-Y9D (Nic. 1932); Nic. 1932; Kellogg 1932; R., 1931; (Ambassadeur \times Fire God); \Box .

AUTAUGA. Laev.-R3L (Nic.-A. H. 1932); Nic. 1932; R., 1932.

Azuma-botan. Jap-Db1-6. Chugai 1932.

Azumahudari. Jap-Sg1-1 (Chaut. 1932).

Azuma-no-yusho. Jap-Db1-7. Chugai 1932.

BABY DURRAND. IB-MF-S6L (Loth. 1932); Sturt. 1932; Baby Durrande (Schreiner).

Bakushu-no-ten. Jap-Bb1-7. Chugai 1932.

BATTLE FLAG. TB-M-R9M (Nic. 1932); R., 1932; (FIRE GOD × CARDINAL).

Bearded Lady. TB- Prior 1932.

Beauty of Yamamoto. Jap-6. Chugai 1932.

BELMAR. IB-S7L (Hall 1932); R., 1931; (SEMINOLE X---).

BEOTIE. TB-S3L (Cay. 1932); C. M., S. N. H. F. 1932; Gard. Ill. 53: 275. 2 May 1931; Bull. S. N. H. F. 5th. Ser. 5: 262. June 1932.

BERGAMA. TB-M-S9M (Wmsn. 1932); Long. 1932; R., 1932.

BISCAY. TB-S7L (Tobie 1932); R., 1931;

BLACKAMOOR. TB-B1D (Sass-J. 1932); Sass-H. P. 1932; Kellogg 1932; Nes. 1932; Pat. 1932; R., 1930; H. M., A. I. S. 1931.

BLACK IMP. TB- (Mur. 1932).

BLACK WATCH. IB-E-B7D (Nic. 1932); R., 1932; (Louis Bel \times Fire God).

BLAZING STAR. TB-M-Y4M (Nic. 1932); R., 1931; (Candlelight \times Dolly Madison); \square .

BLOSSOMTIME. IB-W9L (Wayman 1932); R., 1931.

Blue Aphrodite. TB-B7M. Keller 1932.

BLUE CHARM. Sib.-B1M (Sass.-H. P. 1932); Stoner 1932; R., 1930.

BLUE EDGE. Jap-Db1-1 (Barber 1932).

Blue Giant. Besecker 1932; Wass. 1932; BUECHLEY GIANT.

BLUE GOWN. TB-B3D (Essig 1932); S. Cal. 1932; R., 1929; (AMAS \times Conquistador).

Blue Hesperus. Eng-B. Ellis 1932.

BLUE LIGHT. TB-B1L. Balfour 1932.

BLUE TORCH. TB-M-B9M (Sheets 1932); Sheets 1932; Kellogg 1932; (CARDINAL × GLOWING EMBERS) × (CARDINAL).

BRONZE BEACON. TB-FF-S6M (Salb. 1932); R., 1932; (CORONADO × GLOWING EMBERS); \square .

BROWN PEARL. TB-M-S4L (Hudson 1932); Hudson 1932; Kellogg 1932; R., 1931.

BUECHLEY GIANT. TB-B (Buechley 1932); Besecker 1932; Blue Giant (Wass.).

CABALLERO. TB-M-R3D (Nic. 1932); (MORNING SPLENDOR × CARDINAL). CAEZARS BROTHER. Sib-B (Morg. 1932); Kellogg 1932; R., 1931; Caezar's Brother.

Calico. Jap-Db1-7. Smith-G.N. 1932.

Calypso. TB-Y4. Artin. 1932.

CANDOR. Jap-Sg1-7 (Barber 1932).

CARADON. TB-F-S6D (Bliss-Sturt. 1932); Sturt. 1932; R., 1927; Bull. Iris Soc. (Eng.) 7: 17. July 1929; (Grace Sturtevant ×——).

CARCASSONE. Jap-Sg1-5 (Nes. 1932); R., 1932.

CARNELIAN. TB-R1M (Loth. 1932); S. Cal. 1932; R., 1930; (Pont-A-Mousson \times Druid).

Carolina Nelsoni. Laev-B. Nes. 1932; Nelsoni.

Catherine. Jap-5. Nes. 1932.

CHAUDIERE. Sib-B1L (Preston 1932); Kellogg 1932; Rept. Dom. Hort. 63. 1928; R., 1930; (Sibirica maxima × SNOW QUEEN).

Chedalle. TB-BSM. Artin. 1932.

CHEKILLI. Fulv-vinic-S9L (Wash. 1932); Nes. 1932; R., 1932.

CHEROKEE. Vinic-S7M (Wash. 1932); Nes. 1932; R., 1932.

Cherry Blossom. Jap-Sg1-2. Whit. 1932.

CHERRY RUST. TB-M-S9M (Wmsn. 1932); Long. 1932; R., 1931.

CHINA LANTERN. TB-E-S6 (Essig 1932); (CONQUISTADOR×LENT A. WILLIAMSON) × (CARDINAL); R., 1932; □.

CHINATOWN. TB-E-Y9D (Toedt 1932); (KING TUT × ----).

Chitose-no-homare. Jap-6. Chugai 1932.

CHOCTAW. Hex-B7M (Essig 1932); S. Cal. 1932; R., 1931; (fulva \times DOROTHEA K. WILLIAMSON); Alabama.

Chohitzubame. Jap-Db1-1. Chugai 1932.

CIMARRON. TB-M-R9D (Wmsn. 1932); Long. 1932; R., 1931; ...

CITRICRISTATA ALBA. Radicristatae-WW (Nic.-Jr. 1932).

CLARET GEM. IB-R1M (Grosch, 1932).

CLARETTE. Vinic-R1M (Hoffman 1932); Kellogg 1932.

Clothilda. Eng-B1M. Thoolen 1932.

COESSE. TB-R7D (Richer 1932); Kellogg 1932; R., 1930; (Seminole ×——). Coffee. IB-M-S6D (Scheffy 1932).

COLONIAL. IB-M-S6M (Berry 1932); R., 1932; (mesopotamica \times Lent A. Williamson (No. S. 192)) \times (Titan).

Columbia. TB-S1M (Toedt); Poseidon.

COMSTOCK. TB-M-Y5M (Salb. 1932); R., 1932; (SHERBERT × FORTUNA); ...

Conways Pink. TB-R7L. Hudson 1932.

COOMBELANDS. Eng-B1D (Blom 1932).

COPERNICE. TB-S3M (Notcutt 1932); □.

COPPER KING. TB-Y8L (Wayman 1932); R., 1931. CORALIE. TB-M-S7L (Ayres 1932); Pat. 1932; R. 1931; H. M., A. I. S. 1932; ((Red seedlg.) × (Loute × mesopotamica)) × (DAUNTLESS).

COWETA. Vinic-W8M (Wash, 1932); Nes. 1932; R., 1932.

CRATER LAKE. Eng-M-B1M (San.-L. W. 1932); Cooley 1932.

CREEK. Vinic-S7D (Wash, 1932); Nes. 1932; R., 1932.

CRESSET. TB-R7D (Bliss-Sturt. 1932); Sturt. 1932; R., 1927; (Magnifica \times Bruno).

CRESSIDA. TB-S6D (Bliss-Sturt. 1932); Sturt. 1932; R., 1927; Bull. Iris Soc. (Eng.) 7: 17. July 1932; (Swazi×——).

Cristata Pearl White. Ev-WW. PEARL WHITE.

CROWN PRINCE. TB-S6L (Klein. 1932); Cooley 1932; Kellogg 1932; R., 1931; (Ambassadeur \times Bruno).

CRYSTAL PINK. TB-MF-R1L (Sim. 1932); R., 1932; H. M., A. I. S. 1931.

Daieikwan. Jap-Db1-6. Chugai 1932.

DAIRYMAID. Laev-vers.-W4 (Anders. 1932); Kellogg 1932; R., 1929.

DELFT BLUE. Eng-B1L (Blom 1932).

DESERT WRAITH. TB-M-S6L (Nic. 1932); R., 1932; (MISS WILLMOTT × CARDINAL).

DICTATEUR. TB-S9M (Cay. 1932); R., 1932.

DIRECTEUR PINELLE. TB-S9D (Cay. 1932); C. M. & Spec. Prize S. N. H. F. 1932; Bull. S. N. H. F. 5th Ser. 5: 261. June 1932.

DOROTHEA ROSE. Hex-S7 (Walsh 1932); Kellogg 1932; R., 1931.

DOUGLAS. TB-B3M (Sass-J. 1932); Sass-H. P. 1932; Nes. 1932; R., 1931.

Dragon's Jewel. Jap-Sg1-2. Nes. 1932.

DUCA DEGLI ABRUZZI. Eng-R1L. Bulleri 1932.

DULCIMER. TB-M-B3M (Mor. 1932); Skeels 1932; (CATERINA \times MACRANTHA).

DUNE SPRITE. TB-Y4L (Shull 1932); R., 1932; H. M., A. I. S., 1931.

EAST OF SUEZ. IB-M-S9M (Whipple 1932); R., 1932; (Peau Rouge × Medrano); [].

ECLADOR. TB-Y4D (Cay. 1932); R., 1932; C. M. & Spec. Prize S. N. H. F. 1932; Dykes Medal 1932 (France); Yr. Bk. Iris Soc. (Eng.) 89. 1930; Bull. S. N. H. F. 5th Ser. 5: 261. June 1932.

Ejo-no-kagari. Jap-Sg1-7. Chugai 1932.

ELEANOR MEAD. TB-R7L (Hudson 1932); Kellogg 1932; R., 1931.

ELOISE LAPHAM. TB-R9L (Lap. 1932); Cooley 1932; Gage 1932; R., 1930; H. M., A. I. S. 1932; (APHRODITE \times Pink seedlg.).

Embi-no-waza. Jap-Db1-7. Chugai 1932.

Emilia. TB-B9M. Peed 1932.

EMMELINE BLUE. Jap-Sg1-6 (Barber 1932).

En-U-No-Sora. Jap-Db1-F-6 (Chaut. 1932).

En-yo-no-ten. Jap-Db1-7. Chugai 1932.

EOTHEN. TB-M-Y4L (Wrhm. 1932); Cooley 1932; Kellogg 1932; R., 1931.

EREBUS. TB-M-S7M (Berry 1932); R., 1931.

ESKA HOLT. Hex-B2L (Wash. 1932); Nes. 1932; R., 1932.

Esnui-No-Kiro. Jap-6. Stone 1932.

Esuro-No-Kigoro. Jap-1. Stone 1932.

ETHEL PECKHAM. TB-R9D (Wmsn. 1932); Long. 1932; R., 1931; H. M., A. I. S. 1932; (GRISELDA ×——); □.

ETHEREAL. TB-W1 (Bliss-Sturt. 1932); Sturt. 1932; R., 1927; (DOMINION ×——).

ETRURIA. TB-S9D (Dykes 1932); Ruys 1932; Gard. Chron. 3rd. Ser. 87: 481. 14 June 1930.

EUDORA. Hex-B1M (Wash, 1932); Nes. 1932; R., 1932.

EVENING SPLENDOUR. TB-R3M (Wayman 1932); R., 1931; .

FAIRYLEA. TB-M-W2 (Hall 1932); R., 1931; (?) \times (MME. CHEREAU \times CHARTIER).

FARAUD. TB-S3D (Cay. 1932); Yr. Bk. Iris Soc. (Eng.) 45. 1931; C. M.,
S. N. H. F. 1932; Bull. S. N. H. F. 5th Ser. 4: 309. 25 June 1931.

Fascination. Eng-B1L. Smith-J. 1932.

FEATHER. TB-B2L (Tobie 1932); R., 1931.

FLORENCE TERRESFIELD. TB-R3D (Wayman 1932); R., 1931.

FROST KING. TB-MF-S1L (Donahue 1932); R., 1932; (Moonlight \times ——);

FUCHSIA. TB-R8 (Tobie 1932); R., 1931.

Fuji-gasumi. Jap-Db1-1. Chugai 1932.

Fuji-no-akebono. Jap-Db1-7. Chugai 1932.

Fukumusume. Jap-Db1-6. Chugai 1932.

FUROMAN. Jap-Sg1-1 (Koh.-H. 1932).

F. W. TOEDT. TB-S4L (Toedt 1932); Wass. 1932.

GALE S. HILL. Eng-R7D (San.-L. W. 1932); Cooley 1932.

Ganymede. Jap-Db1-5. Tur. 1932.

GATINEAU. Sib-B1L (Preston 1932); Kellogg 1932; Rept. Dom. Hort. 63. 1928; R., 1930; (Sibirica maxima × Snow Queen).

GENERAL WINDHAM. Span-S3. Glas. 1932.

GENESEE. Jap-Db1-5 (Barber 1932).

GENVIEVE SEROUGE. TB-S3L (Cay. 1932); Yr. Bk. Iris Soc. (Eng.) 43. 1931; C. M. & Spec. Prize S. N. H. F. 1931; Bull. S. N. H. F. 5th. Ser. 4: 309. 25 June 1931; Thebes.

GIANT BALDWIN. TB-E-B7L (Sass-H. P. 1932); Hill-H. M. 1932; R., 1932.

GIGANTICAERULEA ALBA. Radicristatae-Hex-W (Nic.-Jr. 1932); A. I. S. Bul. 42: 93. Jan. 1932; Giganticaerulea var. Pure White.

Giganticoerulea var. Deep blue. Radicristatae-Hex-B (Nic. Jr. 1932).

Giganticoerulea var. China Blue. Radicristatae-Hex-B1L (Nic.-Jr. 1932).

Gofukushoshu. Jap-Db1-7. Chugai 1932.

Golden. Sib-S1. Hamonet 1932.

GOLDEN ARROW. Fulv-Y (Vioska 1932); So. Biol. 1932.

GOLDEN WEDDING. TB-Y4D (Wayman 1932); R., 1931; (SHEKINAK × ——);

GOLD LACE. TB-S6M (Loth. 1932); S. Cal. 1932; R., 1930; H. M., A. I. S. 1931; (MME. DURRAND ×——).

GOLD LEAF. TB-M-Y4D (Nic. 1932); R., 1932; (CANDLELIGHT × Yellow seedlg.);

GOVERNOR. MB-S9D (Wayman 1932); R., 1931; (Ambassadeur x susiana).

Hakkaku-no-nemuri. Jap-Db1-1. Chugai 1932.

Hakuryo. Laev-W8. Chugai 1932.

HALOPHILA LUTEA. Spur-Y4L. Berry 1932.

HAPPINESS. TB-S5M (Hudson 1932); Hudson 1932; Kellogg 1932; R., 1931.

Hashigakari. Jap-Db1-7. Chugai 1932.

Hatsu-Gane. Jap-Sg1-7 (Chaut. 1932).

Hatsu-Gasumi. Jap-Db1-1. Chugai 1932.

Hatsu-O-Den. Jap-Db1-1 (Chaut. 1932).

HEARTHSTONE COPPER. TB-Y9M (Doub 1932); R., 1932; (Seminole × ——) × (Shekinah); Gold Copper; □.

HESTIA. Jap-Sg1-5 (Nes. 1932); R., 1932.

HOLIDAY. TB-W8 (Richer 1932); Kellogg 1932; R., 1931.

HURST. TB-S3L (Waterer 1932).

Ibukuyama. Jap-Db1-1. Chugai 1932.

Imabijin. Jap-Db1-6. Chugai 1932.

IMPERIAL BLUSH. TB-F-R7L (Sass-H. P. 1932); Inter St. 1932; R., 1932; (APHRODITE × RHEINGAUPERLE); [7].

IMPERIALIS. Unicristatae–R7 (Vioska 1932); So. Biol. 1932; Schreiner 1932; R., 1932.

INDIAN SUMMER. Spur-S2M (Wash. 1932); Nes. 1932; R., 1932.

IVORY COAST. TB-EE-W4 (Essig 1932); R., 1932; ((PURISSIMA) × (TROSUPERBA × MOHR NO. 40)) × (MENETRIER); R., 1932.

IVORY TREASURE. TB-W4L (Tobie 1932); R., 1931.

Jakago-No-Nami. Jap-Db1-4 (Chaut. 1932).

Jamo-no-Kumi. Jap-5. Tur. 1932.

JANUS. Jap-3 (Waterer 1932).

JEB STUART. TB-S7D (Wash. 1932); Nes. 1932.

JENNIE SKEELS. TB-E-R7M (Mor. 1932); Skeels 1932; R., 1932.

JIM WALLACE. TB-B1L (Wal.-J.-Saun.-W. E. 1932); Rowan. 1932; Canad. Hort. 53: 7, 197. July 1930; (Lord of June × Sweet Lavender).

JOYCETTE. TB-R7M (Sass-J. 1932); Sass-H. P. 1932; Kellogg 1932; R., 1931; H. M., A. I. S. 1932.

JULIA MEAD. TB-W8 (Hudson 1932); Hudson 1932; Kellogg 1932; R., 1931.

KAIZERINA. TB-B7M. Cheal 1932.

KALHIKO. Jap-Db1-3 (Barber 1932); R., 1932; Kaliko (Barber).

Kari-no-misao. Jap-Db1-7. Chugai 1932.

KATHRYN KNOX. Fulv-hex-R7D (Wash. 1932); Nes. 1932; R., 1932.

Katsura-O-tako. Jap-Sg1-8 (Chaut. 1932).

KENWOOD. TB-M-S9D (Ayres 1932); Emig 1932; Kellogg 1932; R., 1931; (SHERBERT × CARDINAL).

KHALASA. TB-B7D (Sher. 1932); Pat. 1932; (Dominion × Prospero); . Kichibokuo, Jap-Sg1-1 (Chaut. 1932).

KICKAPOO KID. IB-F-S9D (Thom.-W. 1932); Kellogg 1932; R., 1931.

Kirin. Jap-Sg1-5. Chugai 1932.

Kokiran. Jap-Db1-7. Chugai 1932.

Kokyo-Barelight. Jap-6 (Chaut, 1932).

KOOTENAY. Sib-B1L (Preston 1932); Kellogg 1932; Rept. Dom. Hort. 63. 1928; (Sibirica maxima × SNOW QUEEN).

Koroho. Jap-Db1-1. Chugai 1932.

Kumocki-Ginna. Jap- Engle 1932.

Kumono. Jap-Db1-2. Cooley 1932.

Kumo-no-mine. Jap- Chugai 1932.

Kuruma-Dome. Jap-Db1-1. Chugai 1932.

K. V. AYRES. TB-S7L (Ayres 1932); Pat. 1932; R., 1931; H. M., A. I. S. 1931; (Tuscany Gold ×——).

LADY FAIR. TB-R3M (Wayman 1932); R., 1931.

LADY MORVYTH. TB-F-Y9D (Mur. 1932); Orp. 1932; R., 1932; (ROMOLA × ——).

LAFITTE. Hex-B (Vioska 1932); So. Biol. 1932.

LEGEND. TB-M-S9D (Wrhm. 1932); Cooley 1932; Kellogg 1932; R., 1924.

LINGERIE. Eng-B7L (San.-L. W. 1932); Cooley 1932.

LOBENGULA. TB-M-B1D (Nic. 1932); Nic. 1932; R., 1931; (Dark seedlg. $\times\,\text{Morning Splender}).$

LOUISE BONNEWITZ. TB-M-S6L (Bon.-P. 1932); Kellogg 1932; R., 1932.

LOVELY LADY. TB-R3L (Wayman 1932); R., 1931.

LUCERO. TB-M-W6 (Nic. 1932); R., 1932; (Kashmir White \times Yellow seedlg.); \square

LUZIANA. TB-S1M (Wmsn. 1932); Long. 1932; R., 1931.

MABEL TAFT. TB-B3D (Wrhm. 1932); Cooley 1932; Kellogg 1932; (Do-MINION ×——); *Mable Taft*.

MADAWASKA. Sib-B1M (Preston 1932); Kellogg 1932; Rept. Dom. Hort. 63. 1928; R., 1930; (Snow Queen × Sibirica maxima).

Madcap. TB-B3M. Kat. 1932.

Mangetsu. Jap-Db1-1. Chugai 1932.

MANITOU. Vinic-R7D (Wash. 1932); Nes. 1932; R., 1932.

Marianne. TB-R1L (Gottsche 1932); Toedt 1932.

Mashiba-no-kemuri. Jap-Sg1-7. Chugai 1932.

MATHILDA REID. TB-Y4D (Guy 1932); Stoner 1932; R., 1931.

MATSUDA. Jap-Db1- (Vilm. 1932); C. M., S. N. H. F. 1931; Bull. S. N. H. F. 5th. Ser. 4: 271. 25 June 1931; Rev. Hort. 103: 464. 16 July 1931.

Matsushima. Jap-Db1-6. Chugai 1932.

MATTAWIN. Sib- (Preston 1932); Kellogg 1932; R., 1930; Matawin.

MAUD ADAMS. TB-B7D (Wayman 1932); R., 1931.

MAUDE MARIE. TB-B3 (Richer 1932); Kellogg 1932; R., 1931.

MAZAMA. TB-M-S9M (Berry 1932); R., 1932; (Rose Madder \times Mauna Loa) \times (Romola \times Sherbert).

MERRY WIDOW. TB-W8D (Wayman 1932); R., 1931.

Mikado-no-hikari. Jap-Db1- Chugai 1932.

MIKKATEE. Hex-B7D (Wash. 1932); Nes. 1932; R., 1932.

Mikuni-no-hikari. Jap-Sg1-7.

MILESAWAY. TB-S4D (Miles 1932); R., 1932; (kochii \times Souv. de Mme. Gaudichau).

Miyatogawa. Jap-5 (Chaut. 1932).

Miyuki-nishiki. Jap-Db1-7. Chugai 1932.

Mizuho-no-homare. Jap-Db1-7. Chugai 1932.

MME. POMPADOUR. TB-S9D (Wayman 1932); R., 1931.

Momiji-No-Maki. Jap-Db1-6 (Chaut. 1932).

MORIOKA. Jap-Db1-6 (Vilm. 1932); C. M., S. N. H. F. 1931; Bull. S. N. H. F. 5th. Ser. 4: 271. 25 June 1931; Rev. Hort. 103: 464. 16 July 1931.

Mospey Laigen. TB-Y3Drev. Cheal 1932.

MOUNT RANIER. Eng-WW (San.-L. W. 1932); Cooley 1932.

MOURNING DOVE. IB-M-W2D (Toedt 1932); R., 1932.

Mrs. Grey. TB-R1L. Madeleine 1932.

Mrs. Woodhouse. Spur-B. Nes. 1932.

NABOB. Jap-Db1-6 (Barber 1932); R., 1932.

Nafarcha. Span-B3L. Terry 1932.

Nagao-zan. Jap-Db1-6. Chugai 1932.

NAIROBI. Jap-Sg1-6 (Barber 1932); R., 1932.

NANOOK. TB-M-W4 (Ayres 1932); Emig. 1932; Kellogg 1932; R., 1928; (Kashmir White) × (Loute × mesopotamica).

NATCHEZ. Spur-Y3L (Wash. 1932); Nes. 1932; R., 1932.

NATIVIDAD. TB-W4 (Mohr-Mit. 1932); Salb. 1932; R., 1930; (Aurifero × Yellow seedlg.).

NELSONI. Laev-B. Nes. 1932; R., 1932; Carolina Nelsoni.

NEOLA. DB-E-S9D (Sass-J. 1932); Sass-H. P. 1932; Emig. 1932; R., 1931.

NEQUANEE. Jap-Db1-6 (Barber 1932); R., 1932; Nestor (Barber).

NESKOWIN. Jap-Db1-6 (Barber 1932); R., 1932; Nubian (Barber).

Nestor. Jap- (Barber); NEQUANEE.

Netty. Eng-B1L (Blom 1932).

NEU BLEU. Hex-S3M (Wash. 1932); Nes. 1932; R., 1932; New Blue.

NIGHTSHADE. TB-B3D (Wmsn. 1932); Long. 1932; R., 1931; (SHALIMAR ×——).

NINGAL. TB-S1L (Ayres 1932); Emig. 1932; Kellogg 1932; R., 1928; (Second yr. seedlg. of Kashmir White × Caterina) × (Ricardi); Ningall.

NIPIGON. Sib-B2D (Preston 1932); Kellogg 1932; Rept. Dom. Hort. 63. 1928; R., 1930.

Nishika. Jap-Sg1-7. Cooley 1932.

NOONDAY. TB-Y4L (Tobie 1932); Tobie 1932; Kellogg 1932; R., 1931; (SHEKINAH × CHASSEUR).

NORMA JEANNE. TB-FF-R1M (Conery 1932); Kellogg 1932; R., 1930; Norman Jean.

NO-WE-TA. TB-R7M (Sass-H. P. 1932); Sass-J. 1932; Kellogg 1932; Stoner 1932; R., 1931.

Nubian. Jap- (Barber); Neskowin.

Nymphe. Jap-Dz1-5. Waterer 1932.

OBANGA. Hex-B1M (Wash. 1932); Nes. 1932; R., 1932; Obanca.

OCTOBER OPERA. IB-M-FF-S9D (Sass-H. P. 1932); Hill-H. P. 1932.

OCTOROON. Jap-Sg1-5 (Barber 1932); Orchid (Barber).

Ogi-No-Mati. Jap-Sg1-6 (Chaut. 1932).

Ogi-No-Mato. Jap-Sg1-6 (Chaut. 1932).

Oik-No-Shuraho. Jap-Sg1-1 (Chaut. 1932).

OKILISA. Hex-B1M (Wash. 1932); Nes. 1932.

Okino-kagari. Jap-Sg1-6. Chugai 1932.

Oki-no-kamone. Jap-Sg1-7. Chugai 1932.

OKOBOJI. TB-B9D (Sass-J. 1932); Sass-H. P. 1932; R., 1931.

OLD MADRID. TB-R9D (Shull 1932); R., 1932; (trojana × Isoline) × (Julia MARLOWE).

OLIVE WHITE. IB-E-FF-W4 (Sass-H. P. 1932); Toedt 1932; Hill-H. P. 1932; Stoner 1932; R., 1932; □.

Orchid. Jap- (Barber); Octoroon.

OSANA. Hex-S3M (Wash. 1932); Nes. 1932; R., 1932.

OUTRIDER. Jap-Sg1-7 (Barber 1932); R., 1932.

Owsara. Jap-Db1-5. Chugai 1932.

Owyashima. Jap-Db1-5. Chugai 1932.

OXFORD BLUE. Ret-B1D (Carter 1932).

PACIFICO. Eng-FF-WL (San.-L. W. 1932); Cooley 1932.

PALA D'ORO. Jap-Sg1-7 (Nes. 1932).

PANOPLY. Jap-Sg1-7 (Barber 1932); R., 1932.

PANSY BOY. TB-B9D (Wayman 1932); R., 1931.

PASTEL SHADES. TB-Y8 (Essig 1932); S. Cal. 1932; R., 1932; (MINNE- $HAHA \times MIDWEST$).

PEARL WHITE. Ev-WW. Nes. 1932; Cristata Pearl White.

PEGGY PALMER. Jap-Db1-3 (Nes. 1932); R., 1932.

PENUMBRA. TB-M-S6D (Berry 1932); R., 1932; (CRUCIBLE × BRUNO).

PERCES PRIM. IB-F-R7D (Thom-W. 1932); Kellogg 1932; R., 1931.

PERDILLA. TB-B1L. Cheal 1932.

PITRE. IB-Y9M (Cay. 1932); R., 1932; C. M., S. N. H. F. 1932; Bull. S. N. H. F. 5th. Ser. 5: 262. June 1932.

PIXIE. DB-FF-S4L (Sass-H. P. 1932); Kellogg 1932; R., 1928; Pixy.

POMPOUS. TB-S9L (Wayman 1932); R., 1931.

PORTHOS. Jap-Sg1-6 (Nes. 1932); R., 1932.

POSEIDEN. TB-S1M (Toedt 1932); R., 1932; Columbia.

PRINCE PEACOCK. TB-M-S3M (Thom.-S. 1932); Pfeif. 1932; The Peacock. PRUNELLA. TB- (Mur. 1932); Orp. 1932.

PURPLE EAST. TB-B7M (Sturt. 1932); R., 1928; (Souv. DE MME. GAUDI-CHAU × Yellow) × (KASHMIR WHITE × ALCAZAR).

QUEEN ANNE. MB-S6L (Wayman 1932).

REDALGA. TB-S9L (Cay. 1932); R., 1932; C. M., S. N. H. F. 1932; Bull. S. N. H. F. 5th. Ser. 5: 262. June 1932.

RED ELF. IB-M-R7M (Nic. 1932); Nic. 1932; Kellogg 1932; R., 1931; (MEDRANO × MONTOUR).

RED FLARE. TB-R9D (Millik. 1932); S. Cal. 1932; R., 1931; H. M., A. I. S.

RED GIANT. TB-R7 (Wayman 1932); R., 1931; □.

RED RADIANCE. TB-R7D (Grinter 1932); Kellogg 1932; R., 1931; H. M., A. I.S. 1932.

Renown. Jap-Db1-6 (Barber); RURITANIA.

RIDEAU. Sib-B1L (Preston 1932); Kellogg 1932; Rept. Dom. Hort. 63. 1928; (Sibirica maxima × Snow Queen).

RIPPOWAM. TB-M-B3D (Wilson-R. L. 1932); Kellogg 1932; R., 1930; Rippowan.

R. M. COOLEY. Eng-B1L (San.-L. W. 1932); Cooley 1932.

RONDA. TB-M-R7M (Mohr-Mit. 1932); Salb. 1932; R., 1932.

Rosabelle. TB-R1M. Kaye 1932; Artin. 1932.

ROSA RING. TB-E-B7D (Hud. 1932); R., 1932; □.

ROSE BEAUTY. TB-S9L (Wayman 1932); R., 1931.

ROSE GOLD. TB- Engle 1932.

ROWANCROFT PURPLE. DB-E-B7D (Blacklock 1932); Rowan. 1932; R., 1932.

ROWANDIS. Jap-Sg1-7 (Nes. 1932); R., 1932.

Royal Blue. Eng-B1D. Cooley 1932.

RUDDIGORE. TB-F-S9D (Mur. 1932); Orp. 1932; R., 1932; (IMPERATOR \times IRIS KING).

RURITANIA. Jap-Db1-6 (Barber 1932); Barber 1932; R., 1932; Renown (Barber).

RUTHENICA NANA. Ruth-S4. Chugai 1932; Hocker 1932; Thom. & Morg. 1932.

Sairo-no-en. Jap-Sg1-1. Chugai 1932.

SALMACIS. Jap-Db1-5 (Nes. 1932); R., 1932.

SANTIAM. Eng-B1L (San.-L. W. 1932); Cooley 1932.

Sarashino. Jap-Db1-1. Chugai 1932.

SARASOTA. TB-S6M (Richer 1932); Kellogg 1932; R., 1930; (OCHRACEA × ——).

SASUNA. Jap-Db1-6 (Vilm. 1932); C. M., S. N. H. F. 1931; Rev. Hort. 103: 464, 16 July 1931; Bull. S. N. H. F. 5th. Ser. 4: 271. 25 June 1931.

SAVANNARUM ALBA. Trig.-WW (Royal P. 1932); Nes. 1932; Savannarum album.

SAVANNARUM ROYALI. Trig-B1D (Royal P. 1932); Nes. 1932.

SAVANT. Jap-Sg1-6 (Barber 1932); Sinbad (Barber).

Sea Crest. Jap-Db1-4 (Chaut. 1932).

SEA DAWN. TB-M-S7L (Nic. 1932); Nic. 1932; Kellogg 1932; R., 1931; (MIDGARD × MARY GIBSON).

SENECA. IB-E-W8 (Ashley 1932); Kellogg 1932.

SEWANEE. Hex-S1L (Wash, 1932); Nes. 1932; R., 1932.

SHAH JEHAN. TB-FF-S9D (Neel 1932); Orp. 1932; R., 1932; (Ambas-sadeur ×——); [...

SHAKOKA. TB-F-S9M (Gers. 1932); Kellogg 1932; R., 1929; (Alcazar × Rose Madder); D.

SHELL PINK. TB-S7L (Mur. 1932); Orp. 1932; R., 1932.

Shikari. Jap-Db1-7. Cooley 1932.

SHINING WATERS. TB-E-B1 (Essig 1932); R., 1930; ((Caterina \times Marian Mohr) \times (California Blue)) \times (Uncle Remus \times Moa).

Shi-No-Ryo. Jap-Sg1-7 (Chaut. 1932).

Shiratonotaki. Jap-Sg1-5 (Chaut. 1932).

SHIRVAN. TB-M-S7D (Loomis 1932); Pat. 1932; R., 1931; H. M., A. I. S. 1932; (AMBASSADEUR ×———) × (BRUNO).

Shojo. Jap-Db1-6. Chugai 1932.

SHOT SILK. TB-M-S7L (Mur. 1932); Orp. 1932; Prelim. Comm. R. H. S. 1932; Gard. Chron. 3rd. Ser. 91: 484. 25 June 1932; (APHRODITE'X AMBER).

Sinbad. Jap- (Barber); SAVANT.

Siren. Jap-Db1-5 (Waterer 1932).

SIR KNIGHT. TB-M-B3D (Ashley 1932); R., 1932; (Souv. de Mme. Gaudi-Chau × Cardinal); □.

Ski-no-rayo. Jap-Db1-6. Nes. 1932.

SNOWBOY. TB-WW (Wayman 1932); R., 1931.

SNOWCREST. Sib-W4 (Gage 1932); R., 1932; (EMPEROR × SNOW QUEEN).

SNOW SHADOW. TB-M-W3 (Nic. 1932); R., 1932; (Miss Wilmott \times Cardinal).

SOLITAIRE. TB-WW (Nic. 1932); Nic. 1932; Kellogg 1932; R., 1931; (White and Gold × Gleam).

Someginu. Jap-Db1-6. Chugai 1932.

Sotorihime. Jap-7. Chugai 1932.

SPANISH GOLD. TB-M-Y4M (Tobie 1932); R., 1931; (MARY BARNETT \times ROMANCE MURRELL).

SPECIAL. TB-MF-B1D (Hud. 1932); Wayman 1932; \(\subseteq\).

SPRINGMAID. TB-R1L (Loomis 1932); Upton 1932; R., 1929; H. M., A. I. S. 1932.

STARGLOW. TB-Y8Lrev. (Wayman 1932); R., 1931.

STELLA ROSE. TB-S7M (Richer 1932); Kellogg 1932; R., 1931.

ST. GEORGE. TB-R9D (Waterer 1932).

Studio. TB- Egel. 1932; STUDIOTEN. (Donahue).

STYLOSA ALTAFLORA. Ung-B (Millik. 1932); S. Cal. 1932.

SUMAC. TB-M-B9D (Wmsn. 1932); Long. 1932; R., 1931; (LENT A. WILLIAMSON ×——); [].

SUNGLOW. TB-M-W4 (Wayman 1932); R., 1931.

SUNKIST GOLD. TB-E-Y8 (Wayman 1932); R., 1931.

SUNMIST. TB-M-W6 (Nic. 1932); R., 1932; (MOONLIGHT × SNOW WHITE).

SUPREMACY. Jap-Sg1-6 (Barber 1932); R., 1932; Stormcloud (Barber).

Sure-no-kagaki, Jap-Db1-7. Chugai 1932.

Suzumi-no-yukata. Jap-Db1-7. Chugai 1932.

TAHITI. Eng-EE-B7L (San.-L. W. 1932); Cooley 1932.

Tamagawa-Zome. Jap-Sg1-7. Chugai 1932.

Tamidare. Jap-Sg1-5 (Chaut. 1932).

Tamporo. Jap-Db1-6. Chugai 1932.

TASKONA. Fulv-vinic-S4L (Wash. 1932); Nes. 1932; R., 1932.

Tatsuta-hime. Jap-Sg1-1. Chugai 1932.

TENAYA. TB-E-R1 (Essig 1932); R., 1932; (Alcazar × Souv. de Mme. Gaudichau) × (Cardinal).

Tenjo-no-mai. Jap-Db1-6. Chugai 1932.

Ten-yu. Jap-Db1-6. Chugai 1932.

THEODOLINDA. TB-M-B2M (Ayres 1932); Emig. 1932; Kellogg 1932; R., 1931; (Souv. de Mme. Gaudichau) × (Loute × mesopotamica).

The Peacock. (Thom.-S.); PRINCE PEACOCK.

TICONDEROGA. TB-Y9D (Hudson 1932); Hudson 1932; Kellogg 1932; R., 1931.

TIGER TIGER. TB-M-S9M (Wrhm. 1932); Cooley 1932; Kellogg 1932; R., 1923.

TINGITANA AZUREA. Span-B1D. Austin 1932.

TOKENEKE, TB-S3D (Wilson-R. I. 1932); Kellogg 1932; R., 1930.

TORCHLIGHT. TB-WW (Richer 1932); Kellogg 1932; R., 1931.

TOSCANA. TB-M-S4L (Count. 1932); Long. 1932; R., 1931; (Vesper Gold ×----).

TUALATIN. Jap-Sg1-7 (Barber 1932); Tapestry.

TULSA. Hex-B7D (Essig 1932); S. Cal. 1932; R., 1932; (fulva × Dorothea K. Williamson).

Twin Sisters. TB-R7L (Sass-J. 1932); Snyder 1932; (Trostringer × Aphrodite).

TWO-FOR-TEA. IB-M-B7M (Auten 1932).

Ujaka. Jap-Dbl-1. Ruys 1932.

Unica. RC-S8. Bulleri 1932.

VALOR. TB-M-R3D (Nic. 1932); R., 1931; H. M., A. I. S. 1932; (Ambas-sadeur × Rubyd).

VERNAPIED. Ev-Dwf-3 (Coll. Virginia-Nic.-Jr. 1932); Nic.-Jr. 1932; Verna, Piedmont form.

VILLE D'ORLEANS. IB-Y4 (Tur. 1932).

VIOLET MELODY TB-B7D (Wayman 1932); R., 1931.

VISION. TB-S6D (Cay. 1932); Yr. Bk. Iris Soc. (Eng.) 73. 1930; 43. 1931;
C. M. & Spec. Prize S. N. H. F. 1932; Bull. S. N. H. F. 5th Ser. 5: 261.
June 1932; Felicite.

WENA GOODALL. Fulv-vinic-R2L (Wash. 1932); Nes. 1932; R., 1932.

WHITE DRESS. Jap-Dbl-1 (Barber 1932).

WHITE SISTER. TB-M-W4L (Gers. 1932); R., 1931; (CECIL MINTURN × CAROLINE E. STRINGER); □.

Yamaji-no-tsuyu. Jap-Sg1-7. Chugai 1932.

YAZOO. Nex-S1L (Wash. 1932); Nes. 1932; R., 1932.

Yuki-kagami, Laev-1. Chugai 1932.

Yume-no-ukihashi. Jap-6. Chugai 1932.

ADDITIONS TO LIST OF BREEDERS AND INTRODUCERS

Alex.—E. J.—Edward Johnston Alexander, N. Y. Botanic Garden, Bronx Park, New York, N. Y.

Allen-George M. Allen, 1915 W. Magnolia Ave., San Antonio, Texas.

Arbor-Mount Arbor Nurseries, Shenandoah, Iowa.

Baines-Ella V. Baines (Florist), Springfield, Ill.

Balfour-A. Bonar Balfour, R. R. 2, St. Catharines, Ontario, Canada.

Becker-Mrs. Fred Becker, 616 5th St., Marietta, Ohio.

Besecker-Mrs. C. S. Besecker, R. R., Greenville, Ohio.

Bolgiano-F. W. Bolgiano & Co. Inc., Seedsmen, Washington, D. C.

Bon.—G. A.—Mrs. G. A. Bonisteel, Bon-Glad Gardens, 35 Highland Ave., Belleville, Ontario, Canada.

Bon.-P.-Paul Bonnewitz, 200 South Ave., Van Wert, Ohio.

Bridgette-Bridgette Jane Gardens, Lancaster, Ohio.

Bulleri-F. Bulleri, Reale Stabilimento Flororticolo, Scafati (Salerno), Italy.

Burgess—Miss Emily Jean Burgess, c/o Messrs. A. H. Burgess & Son, Waikanae, Wellington, N. Z.

Burgess-Mich.-Burgess Seed and Plant Co., Galesburg, Mich.

Chaut.—Chautauqua Flowerfield Co., (C. Zeestraten), Greenhurst, N. Y.

Cheal-J. Cheal & Sons Ltd., Lowfield Nurseries, Crawley, Sussex, Eng.

Coe-Coe, Converse and Edwards Co., Nurserymen, Fort Atkinson, Wis.

Conway-Henry N. Conway, 2300 Main St., Little Rock, Ark.

Dorn-Werner Dorn, Eupenerstrasse, Aachen-Steinebrueck, Germany. (Formerly Standengaertnerei, Koenigswinter & Aachen, Germany.)

Doub-M. Berry Doub, Hearthstone Farm Iris Gardens, Hagerstown, Md.

Ellis-Merton G. Ellis Bulb Gardens, Canby, Oregon.

Engert—Caspar Engert, 3220 Navajo Drive, Chattanooga, Tenn.

Engle-W. J. Engle & Son, Box 486, R. R. 8, Route 11, Dayton, Ohio.

Fewkes-A. H. Fewkes, 120 Hyde St., Newton Highlands, Mass.

Fryer Jr.—W. E. Fryer Jr., Mantorville, Minn.

Fry. Nur.—Fryer's Nursery, Mantorville, Minn.

Gotts.—Roy W. Gottschall, 210 Summit St, Marion, Ohio.

Grossh.—A. A. Grossheim, Bot. Gard., Tiflis, Russia.

Hardy P. G.—Hardy Perennial Gardens, 202 Park Ave., Wilson, N. C. (formerly Shiloh Gardens, Omaha, Nebraska.)

Hill-H. M.-H. M. Hill, Hill Iris & Peony Farm, Lafontaine, Kansas.

Hocker-Hocker Edge Gardens, (Colonel Grey), Cranbrooke, Kent, Eng.

Hoffman-Hoffman, New Orleans, La.

Inter-St.-Interstate Nurseries (L. R. Sjulin), Hamburg, Iowa.

Jones-R. H.-R. H. Jones, Tuckdawa Gardens, Peru, Indiana.

Kaye—Reginald Kaye, Waithman Hardy Plant Nursery, Silverdale, Lanes., England.

Koh.—H.—Henry Kohankie & Son, Painesville, Ohio.

Lauw.—Rene Lauwaert, Nivelles, Belgium. (succ. to Pepinieres A. Lauwaert.)

Leach-Mrs. John R. Leach, (Botanist), Portland, Oregon.

Little-J. A.-J. A. Little, 706 Stuart Bldg., Lincoln, Nebr.

Louis.—The Louisville Nurseries, St. Matthews, Ky.

Maw-H. H. Maw & Son, Friarwood Nurseries, Pontefract, Yorks., Eng.

May Seed-May Seed Co., (Earl E. May), Shenandoah, Iowa.

Miles-Wm. Miles, Surreyhurst Farm, R. R. 5, Ingersoll, Ontario, Canada.

Mit.-N.-Mitchell Nurseries, Barre, Vt.

Neel-E. W. Neel, P. O. Box 365, Duncan, B. C., Canada.

Nic.-Jr.-J. C. Nicholls Jr., Royal Iris Gardens, Camillus, N. Y.

Ohio St. U .-- Ohio State University, Columbus, Ohio.

Onarga—Cul.—Onarga Nursery Co., (A. J. & H. B. Cultra), Onarga, Ill.

Ouden-H. Den Ouden & Son, The Old Farm Nurseries, Boskoop, Holland.

Papen.-Papendrecht-Vandervoet, Sassenheim, Holland.

Peed-John Peed & Son, West Norwood, London S. E. 27, England.

Presque—Hardy Garden Nurseries, 22 Academy St., Presque Isle, Me.

Prior—D. Prior & Son Ltd., Colchester, Essex, Eng.

Reed-M.-Mrs. Mattie D. Reed, N. 2nd St., Rochelle, Ill.

Riverside-Riverside Gardens, (Harcourt M. Taylor), Yakima, Wash.

Roland.—Rolandhurst Nurseries, (Roland J. Bailey), Hebron, Md.

Royal-P.-Royal Palm Nurseries, Oneco, Fla.

San. L. W.-L. W. Sanford, 1230 Salem Rd., Albany, Oregon.

Schneider-Rudolph C. Schneider, 708 Osceola Ave., St. Paul, Minn.

Simmons-Winn T. Simmons, 518 Aspen St. N. W., Takoma Park, D. C.

Skeels-Homer C. Skeels, 210 Holly Ave., Takoma Park, D. C.

Smith-J.-Joe Smith, Olympia, Wash.

Snyder-W. S. Snyder, 604 F. L. & T. Bldg., Sioux City, Iowa.

So. Biol.—Southern Biological Supply Co. Inc., (Percy Vioska Jr.), 517 Decatur St., New Orleans, La.

Spender—Major R. E. S. Spender, Halshanger, Bagley Wood, Oxford, Eng.

Stanley-L. G. Stanley, Hayward, Cal.

Telkamp—Gerard Telkamp, The Bulbfarm, Hillegom, Holland, and 57 Chancery La., London, Eng.

Terry-C. E. Terry, Terry Bulb Gardens, Carlton, Oregon.

Thiebaut—Thiebaut, Place de la Madeleine, Paris, France.

Thom .- S. - S. M. Thomas, Doll Coathe Gardens, Lodi, Wis.

Thoolen-J. J. Thoolen, Heemstede, Haarlem, Holland.

Ugr.—Dr. K. Ugrinsky, Pfalzburgerstrasse 6, Berlin-Wilmersdorf, Germany.

Vioska—Percy Vioska Jr., 517 Decatur St., New Orleans, La.

White—C. G.—Clarence G. White, (P. O. Box 186), Sunset Drive and Mariposa, Redlands, Cal.

White—E. B.—Dr. Earle B. White, Box 272, Kensington, Md.

Williams-F. F.-Dr. Frank F. Williams, Jr., Highland Ave., Patton, Cal.

Wor.—G. Woronoff, Bot. Gard., Leningrad, Russia.

Wyatt-Wyatt & Sons Co., (formerly Job. P. Wyatt & Sons Co.), Raleigh, N. C.

THE NEW CLASSIFICATION FOR BEARDED IRIS

The dwarf, intermediate and tall bearded types are to be classified according to height instead of season of bloom to fix the type, but the season of each type is to be noted by the additions of the letters EE, E, EM, M, MF, F and FF, for extra early, early, early to midseason, midseason, midseason to late, late and very late to fall blooming. This will enable the dwarf bearded section to take in all former so-called intermediates and tall bearded varieties of a height under sixteen inches, and the intermediates, all former tall bearded of a height between eighteen and twenty-eight inches, reserving for the tall bearded section only those attaining a height of thirty inches or more—this section will then include some of the newer intermediates that attain a height of thirty inches. Breeders in future when submitting varieties for registration will therefor indicate the exact height, the blooming season and describe the fragrance.

Pod-parent is always placed first in parentages. When there is a blank, pod-parent is an unnamed plant. Pollen parent is always last.

A full list of fragrance descriptions classified in groups according to strength, quality, etc., is in preparation and will be published before long.

IRIS DICHOTOMA. A Note from Mrs. Arbuckle in Columbus, Ohio.

"This year I have had *Iris dichotoma*, the Vesper Iris in bloom—raised from seed and in flower within a period of eighteen months. One plant with two fans of leaves carried forty-two blossoms between August 10th and September 13th. The plants are perfectly hardy as they are natives of Eastern Siberia, Mongolia, and northern China. Dykes describes this iris as variable in color and mine were a lovely reddish orchid with a white blotch on the blade of the fall. He also says the plant is usually exhausted with its first season of bloom. I know, however, of one plant that has flowered for two seasons. I consider this iris well worth growing even as a biennial."

REGISTRATIONS FOR 1932

No person other than the originator may register a seedling unless permission in writing from the breeder to make such registration has been granted and *said letter* filed with the Chairman of the Registration Committee at the time such registration is requested.

The closing date for registrations to be received for publication in the January Bulletin following is August 15. Any received after that date will be treated as registrations of the following year.

UNDER NO CONSIDERATION WILL NAMES WITHOUT DESCRIPTIONS AS TO TYPE, COLOR, SEASON OF BLOOM, HEIGHT, FRAGRANCE AND ITS QUALITY, AND PARENTAGE IF AVAILABLE, BE APPROVED OR REGISTERED.

It is also to be understood that registration or approval of a variety is made subject to the contingency of an older variety of the same or closely similar name coming to light soon after the current registration or approval, in which case a new approvable name must be submitted, when requested.

The new species of Dr. Small and Mr. Alexander, are all natives of Louisana and represent many pronounced differences. The group names are new, tentative ones, given to make a working basis, and may be changed.

AAHMES. Jap-Db1-1 (Nes. N.). ABNAKI. Jap-Db1-1 (Nes. 1932). ADIRONDACK. TB-M-S3L (Storer N.).

A. E. ROWE. TB-M-R3D (Schneider N.); (Seminole \times );

AHALYA. Sib-R1L (Nes. 1932).

alabamensis. Hex. (Small 1931); Bot. Int. Irid. Gulf States 1931.

ALBESCENS. Sib-W1 (Vilm. 1904); Rev. Hort. 104: 163. 16 July 1932.

ALENCON. TB-M-W2 (Richer N.); (CRUSADER × LENT A. WILLIAM -SON); .

ALINE. TB-S1L (Stern N.); A. M., R. H. S. 1931; Gard. Ill. 53: 725. 28 Nov. 1931; Jour. R. H. S. 52: Pt. 1, 72. Jan. 1932; Gard. Chron., 3rd Ser. 92: 58. 23 July 1932;

alticristata. Radicristatae (Small 1931); Bot. Int. Irid. Gulf States 1931.

AMBERFELLOW. DB-E-S6L (Ouden N.); (Bridex......).

AMORET. Jap-Db1-4 (Nes. 1932). A P P A L A C H E E. Fulv-hex-R3M (Wash. 1932); Nes. 1932.

APPLAUSE. Jap-Sg1-7 (Barber 1932); Algonquin (Barber).

ARABIAN. Jap-Sg1-6 (Barber 1932).

ARABIAN PRINCE. IB-MF-S6D (Sim. 1932); H. M., A. I. S. 1930; (GAMALIA × CARDINAL).

ARKANSAS. Hex-Y7M (Essig 1932); S. Cal. 1932; (fulva × DOROTHEA K. WILLIAMSON).

ATOLIA. TB-M-S9D (Loth. N.); (mesopotamica × Elberon); □.

ATOM. DB-S7M (Sheets N.); $(STANDARD \times SYRA)$; \square .

atroenantha. Tricristatae (Small 1931); Bot. Int. Irid. Gulf States 1931.

aurilinea. Radicristatae (Alex.-E. J. 1931); Bot. Int. Irid. Gulf States 1931.

AUTAUGA. Laev-R3L (Nic.-A. H. 1932).

- BATTLE FLAG. TB-M-R9M (Nic. 1932); (FIRE GOD \times CARDINAL).
- BEOTIE. TB-S3L (Cay. 1932); C.
 M., S. N. H. F. 1932; Bull. S. N.
 H. F., 5th Ser. 5: 262. June 1932.
- BEST BLUE. TB-B1 (Sheets N.); (Wedgwood × Aurelle).
- BILLIE BOY. DB-E-R1D (Miles N.); (Seedlg. 505 x self).
- BIRMINGHAM. TB-E-S9L (Con. N.).
- BLACK WATCH. IB-E-B7D (Nic. 1932); (Louis Bel×Fire God).
- BLAZING STAR. TB-M-Y4M (Nic. 1932); (CANDLELIGHT × D O L L Y MADISON); ...
- BLUECHO. TB-B1D (Donahue N.); (Sensation ×).
- BLUE EDGE. Jap-Db1-1 (Barber 1932).
- BLUE JUNE. TB-M-B1L (Donahue 1931); (SENSATION X); ...
- BLUENOSE, TB-B1M (Donahue N.); (DALMATICA ×).
- BLUE PARADE. TB-B7 (Donahue N.); (Swazi x).
- BLUE PIGMY. DB-E-B1D (Ouden N.); (EBURNA. ×——).
- BLUEPOINT. TB-F-B1L (Donahue N.); (SENSATION \times ); \square .
- BLUE TORCH. TB-M-B9M (Sheets 1932); Kellogg 1932; (CARDINAL × GLOWING EMBERS) × (CARDINAL).
- BOSTONIAN. TB-F-B1M (Donahue N.); (SENSATION ×).
- brevipes. Hex. (Small 1931); Bot. Int. Irid. Gulf States 1931.
- BROCADE. TB-M-S9D (Berry N.); (ALCAZAR × MOA) × (MEDRANO × CONQUISTADOR).
- BRONZE BEACON. TB-FF-S6M (Salb. 1932); (CORONADO × GLOWING EMBERS); □.
- BRUNOLD. TB-S6D (Stern N.); C. M., R. H. S. 1932; Gard. Ill. 54: 375. 18 June 1932; Brunette (Stern).
- BYRON GRAY. TB-B1M (Hud. 1931); \Box .

- BYZANTIUM. TB-S4L (Ayres N.); Yr. Bk. Iris Soc. (Eng.) 66. 1932.
- CABALLERO. TB-M-R3D (Nic. 1932); (MORNING SPLENDOR × CARDINAL).
- CAJON. TB-M-R1M (Loth. N.); $(MOLIERE \times DRUID)$; \square .
- callilopha. Coronicristatae (Alex.-E. J. 1931); Bot. Int. Irid. Gulf States 1931.
- CAMBYSES. TB-F-Y9 (Sass-H. P. N.); (King Juba × Midwest Pride).
- CANDOR. Jap-Sg1-7 (Barber 1932). CARCASSONNE. Jap-Sg1-5 (Nes. N.).
- CARRARA. TB-M-WW (Doub N.).
 CHARITY. TB-F-B9D (Burgess N.); (AURELLE × MRS. VALERIE WEST).
- CHEKILLI. Fulv-vinic.—S9L (Wash. 1932); Nes. 1932.
- CHEROKEE, Vinic-S7M (Wash. 1932); Nes. 1932.
- CHERRY LANE. TB-R3D rev. (Sheets N.); (Mrs. Marion Cran × Melchior).
- CHICKASAW. Fulv-vinic-R7D (Wash. 1932); Nes. 1932.
- CHINATOWN. TB-E-Y9D (Toedt 1932); (King Tutx----).
- CHOCTAW. Hex-B7M (Essig 1932); S. Cal. 1932; (fulva × Dorothea K. Williamson); Alabama.
- chrysolopha. Coronicristatae (Small 1931); Bot. Int. Irid. Gulf States 1931.
- CLYTIE. TB-M-Y4M (Loth. N.);
- COLONIAL. IB-M-S6M (Berry 1932); (mesopotamica × Lent A. WILLIAMSON = No. S 192)×(TITAN).
- COLOR GUARD. TB-W8 (Sheets N.); (DAMOZEL × ROZANNA).
- COLOR MARVEL. TB-S7D (Sheets N.); (Purple Glory × Dolly Madison).

- COMSTOCK. TB-M-Y5M (Salb. 1932); (SHERBERT × FORTUNA); \sqcap .
- COUPERIN. Fulv-S6M (Mead N.).
- COWBOY. TB-M-B7L (Davis 1931); (L E W I S TROWBRIDGE × HALFDAN); Blue Moon (Davis).
- COWETA. Vinic-W8M (Wash. 1932); Nes. 1932.
- CREEK. Vinic-S7D (Wash. 1932); Nes. 1932.
- CRIMSON MONARCH. TB-R7M (Sheets N.); (KING TUT × GRAND MONARCH).
- CRYSTAL LAKE. TB-B1L (Sheets N.); (MARY BARNETT × ZULU).
- CRYSTAL PINK. TB-MF-R1L (Sim. 1932); H. M., A. I. S. 1931;
- CUDBEAR. TB-M-R1M (Doub N.).
 CUP OF GOLD. TB-Y4 (Sheets N.);
 (BLUE TORCH × DOLLY MADISON) ×
 (LANSDOWNE).
- cyanochrysea. Tricristatae (Small 1931); Bot. Int. Irid. Gulf States 1931.
- CYSTRIA. TB-B9M (Cay. N); C.
 M., S. N. H. F. 1932; Bull. S. N. H.
 F., 5th Ser. 5: 262. June 1932.
- DAINTINESS. IB-M-R8L (Black N.); (M M E. CHEREAU × pink seedlg.); □.
- DAVID ARNOTT. TB-B9D (Saun.-W. E. N.); Canad. Hort. 55: 182. Aug. 1932.
- DEMOCRAT. IB-M-R1D (Black N.); (BLACK KNIGHT ×); ...
- DESERT WRAITH. TB-M-S6L (Nic. 1932); (MISS WILMOTT × CARDINAL); □.
- DESTINY. TB-F-S9D (Burgess N.); (AURELLE × MRS. VALERIE WEST).
- DICTATEUR, TB-S9M (Cay. 1932).
- DIRECTEUR PINELLE. TB-S9D
 (Cay. 1932); C. M. & Spec. Prize,
 S. N. H. F. 1932; Bull. S. N. H. F.,
 5th Ser. 5: 261. June 1932.

- DR. ANNIE BESANT. Spur-Y6 (Stanley 1928); Wayman 1932.
- DRESDEN. IB-E-R8L (Richer N.); \Box .
- DULCIMER. TB-M-B1M (Mor. 1932); (CATERINA × MACRANTHA).
- DUNE SPRITE. TB-Y4L (Shull 1932); H. M., A. I. S. 1931.
- EAST OF SUEZ. IB-M-S9M (Whipple 1932); (PEAU ROUGE × ME-DRANO); | .
- ECLADOR. TB-Y4D (Cay. 1932); Yr. Bk. Iris Soc. (Eng.) 89. 1930; C. M. & Spec. Prize, S. N. H. F., & W. R. Dykes Medal 1932; Bull. S. N. H. F., 5th Ser. 5: 261. June 1932; Soleil d'Or (Cay.).
- EGMONT. TB-F-W9D (Burgess N.). ELIZABETHJANE. TB-S6D (Hud. 1931); Elizabeth J.
- EMMELINE BLUE. Jap-Sg1-6 (Barber 1932).
- ERMINE. TB-E-W2D (Richer N.);

 □
- ERROMANGO. TB-Y (Cay. N.); Rev. Hort. **104**: 163. 16 July 1932. ESKA HOLT. Hex-B2L (Wash. 1932); Nes. 1932.
- ESKIMO KNIGHT. TB-WW (Sheets N); (WHITE KNIGHT × CHARTIER).
- ETHELWYN DUBUAR. TB-F-R1D (Lap. N.); (Susan Bliss × Sweet Sixteen); [].
- EUDORA. Hex-B1M (Wash. 1932); Nes. 1932.
- FALLING WATER. TB-W2 (Sheets N.); (No. S-16 × TINTALLION) × (RHEINGAUPERLE).
- FERVOR. TB-R1D (Con. N.).
- FLAME BEARER. TB-M-R3 (Essig 1932); ((Hollywood) \times (Alcazar \times Souv. de Mme. Gaudichau)) \times (Mme. Cheri \times Magnifica); \square .
- FLORA BECKER. TB-E-B1M (Becker N.); (Souv. DE MME. GAUDICHAU ×).

- FLORESTAN. TB-M-Y9M (Mead N.).
- FLOSSIE. TB-S9L (Cay. N.); Rev. Hort. 104: 163. 16 July 1932; C. M., S. N. H. F. 1932; Bull. S. N. H. F., 5th Ser. 5: 263. June 1932.
- fluviatilis. Radicristatae (Small 1931); Bot. Int. Irid. Gulf States 1931.
- FORTUNE TELLER. TB-S9M (Sheets N.); (ROMANCE MURRELL × ALLURE).
- FRAGRANT DAWN. TB-M-B7L (Donahue N.); (MARQUISETTE ×).
- FRANCES GRAY. TB-R7L (Hud. 1931); \Box .
- FRESHET. TB-M-W4 (Peck. N.); (GEORGIA ×);
- FRESNO. TB-M-Y9D (Hend.-W. H. 1932); Schreiner 1932; (Fro × GLOWING EMBERS); □.
- FRIGATE. TB-M-B7M (Peck. N.); $(trojana \times Geo. J. Tribolet); \square.$
- FRONDEUR. TB-S9M (Cay. N.); Gard. Chron. 3rd Ser. 91: 425. 4 June 1932.
- FROST KING. TB-MF-S1L (Donahue 1932); (MoonLight ×);
- FULL MOON. TB-S4 (Sheets N.); (ANNE MARIE CAYEUX × OMAHA).
- fuscisanguinea. Tricristatae (Alex.— E. J. 1931); Bot. Int. Irid. Gulf States 1931.
- F. W. TOEDT. TB-S4L (Toedt 1932); Wass. 1932.
- GANGES. TB-M-B7D (Mead N.); (DOMINION × SOUV. DE MME. GAUDI-CHAU).
- GENESEE. Jap-Db1-5 (Barber 1932).
- GIANT BALDWIN. TB-E-B7L (Sass-H. P. 1932); Hill-H. M. 1932.
- GIRL SCOUT. TB-S4L (Sheets N.);
 Golden Rod (Sheets).
- GLADNESS. DB-R1D (Miles N.); (Seedlg. No. 505 x self).

- GLORIOLE. TB-F-B1L (Gage N.); (Souv. de Loetitia Michaud × QUEEN CATERINA).
- GOETZ. Patula-IB-M-R1M (Ugr. N.); Gartensch. 13: 6, 113. June 1932; (flavissima × Hungarica); Baron Jan Goetz von Okocin; ...
- GOLDEN CHIMES. TB-S7L (Sheets N.); (OPHELIA × ROMANCE MURRELL).
- GOLDEN FLAME. TB-Y7D (Donahue N.); (PLUIE D'ORX............).
- GOLDEN GODDESS. TB-Y4M
 (Donahue N.); (PLUIE D'ORX.......).
- GOLDEN IMP. DB-E-Y6D (Donahue N.).
- GOLDEN LIGHT. TB-F-S4 (Sass-H. P. N.); (EUPHONY ×).
- GOLD LEAF. TB-M-Y4D (Nic. 1932); (CANDLELIGHT \times Yellow seedlg.); \square .
- GRACIOSA. TB-M-S9D (Loth. N.); (SINDJKHA×AURELLE); □.
- HAIFA. TB-M-S4L (Storer N.). HEARTSTONE COPPER. TB-Y9M (Doub 1932); (SEMINOLE×........) × (SHEKINAH); Gold Copper; □
- HERMOSILLO. DB-E-B7M (Sheets N.); (SOCRATES × MAIA).
- HESTER PRYNNE. TB-S9D (Bliss N.); Yr. Bk. Iris Soc. (Eng.) 64. 1932.
- HESTIA. Jap-Sg1-5 (Nes. N.).
- HUNTERS MOON. TB-Y4L (Tomalin N.); (Moonlight × Bruno); C. M., R. H. S. 1932; Gard. Ill. 54: 375. 18 June 1932; Harvest Moon (Tomalin).
- IDOLE. TB-S6M (Cay. N.); Rev.
 Hort. 104: 163. 16 July 1932; C.
 M., S. N. H. F. 1932; Bull. S. N. H.
 F., 5th Ser. 5: 263. June 1932.
- IMPERIALIS. Unicristatae—R7 (Vioska 1932); So. Biol. 1932; Schreiner 1932.

- INDIAN GOLD. TB-M-S6L (Hend.-W. H. 1931); (EL CAPITAN × GLOWING EMBERS); □.
- INDIAN PRINCE. TB-S9L (Sheets N.); (Dr. Chas. H. Mayo × RED WING).
- INDIAN SUMMER. Spur—S2M (Wash. 1932); Nes. 1932.
- iochroma. Tricristatae (Small 1931); Bot. Int. Irid. Gulf States 1931.
- IOLA. TB-F-W1 (Sass-H. P. N.); (LADY FOSTER × white IB) × (WAMBLISKA).
- ITTA BITTA. DB-F-W4 (Ayres N.); (MONTEZUMA × "by a bee").
- IVORY COAST. TB-EE-W4 (Essig 1932); ((PURISSIMA × TROSUPERBA × WM. MOHR, No. 40)) × (MENETRIER).
- JACOBEAN. TB-S5M (Mur. 1932); (W. R. Dykes ×); Old Tapestry (Mur.).
- JEB STUART. TB-S7D (Wash. 1932); Nes. 1932.
- JENNIE SKEELS. TB-E-R7M (Mor. 1932); Skeels 1932.
- JENNY. Patula—IB-BIL (Ugr. N.); Gartensch. 13: 6, 113. June 1932; (flavissima × P U M I L A C A E R U -LEA);
 ...
- J. F. RIEDY. TB-S7D (Toedt 1931);
 J. F. Reidy.
- JUBILANT. TB-F-89D (Berry N.); (King Tut) × (Rose Madder × Mauna Loa).
- KALHIKO. Jap-Db1-3. (Barber 1932); *Kaliko* (Barber).
- KATHLEEN FETHERSTON. TB—S9D (Saun.-W.E. N.); Canad. Hort. 55: 8, 181. Aug. 1931; Kathleen Featherston.
- KATHRYN KNOX. Fulv-hex-R7D (Wash. 1932); Nes. 1932.
- KATISHA. TB-F-S9L (Hall N.); $((\dots) \times (WINDHAM \times ISOLINE)) \times (ELSINORE)$.

- KEYSTONE. TB-MF-R1M (McKee N.); (DOMINION × trojana) × ROYAL BEAUTY); [7].
- KILSOQUAH. TB-F-S9D (Richer N.); □.
- KING CAESAR. Ret-B7D (Wayman N.)
- KING PHILIP. TB-E-B7M (Fewkes N.); (Souv. DE MME. GAUDICHAU×AMBASSADEUR); □.
- KOLA. Patula-IB-M-R1M (Ugr. N.); Gartensch. 13: 6, 113. June 1932; (flavissima × Hungarica).
- L A D Y MORVYTH. TB-F-Y9D (Mur. 1932); (ROMOLA ×———).
- LADY PARAMOUNT. TB-EM-Y4L (White-C.G. N.); H. M., A. I. S. 1932; (W. R. DYKES × AURIFERO).
- LADY ROSE. TB-M-S9M (McKee N.); (CARDINAL × trojana) × (SEMINOLE × ALCAZAR); □.
- LADY SPENDER. TB-M-S9D (Spender N.); (Unnamed seedlg. × DUKE OF BEDFORD); Lady Spencer;
- LAURENTIA. Hex-fulv-R1D (Williams-F.F. N.) H. M., A.I.S. 1931; (HEXAGONA ALBA×fulva).
- LA VIERGE. TB-WW (Cay. N.); Bull. S. N. H. F., 5th Ser. 4: 311. 25 June 1931.
- LEMON DARLING. DB-E-Y4L. (Ouden N.); (Bride ×).
- LILLIAN TOEDT. IB-M-S7M (Toedt 1931).
- LITTLE BLUET. DB-EE-B1L (Sheets N.).
- LITTLE JEWELL. DB-E-B7M (Sheets N.); (STANDARD \times ZULLICHAU).
- LITTLE SUNSHINE. DB-E-Y4M (Sheets N.); (YLO \times SFAX).
- LOUISE BONNEWITZ. TB-86L (Bon.-P. 1932); Kellogg 1932.

- LUCERO. TB-M-W6 (Nic. 1932);

 KASHMIR WHITE × Yellow seedlg.);
- MAISIE LOWE. TB-B3D (Gibson 1930); G. & A. 1930.
- MALVACEA. Sib-R1L (Vilm. 1904); not formally intro.; seedlg. of large lilac siberica; Rev. Hort. 104: 163. 16 July 1932.
- MANITOU. Vinic-R7D (Wash. 1932); Nes. 1932.
- MARIA CHAPPEDELAINE. TB-W2 (Cay. 1932); C. M., S. N. H. F., 1932; Bull. S. N. H. F., 5th Ser. 5: 262. June 1932; Maria Chappedelaine TB-B1M A. I. S. Check List 1929.
- MARIAN LAPHAM. TB-F-R7L (Lap. N.); (CAMILLA DUBUAR × SWEET SIXTEEN); [].
- MARIE FORD. TB-S1L. (Tomalin N.); C. M., R. H. S. 1932; Gard. Ill. 54: 375. 18 June 1932.
- MARJORIE. TB-R3 (Stern N.); Jour. R. H. S, 57: Pt. 1, 71. 1932; A.M., R. H. S., 1932; Yr. Bk. Iris Soc. (Eng.) 73. 1932.
- MARYLAND MOON. TB-Y8L (Sheets N.); (SOPHRONIA × OLIVE MURRELL).
- MARY LOU. TB-F-B7M (Little-J. A. N.); □.
- MATCHMAKER. TB-S9 (Sheets N.); (KING TUT × AVATAR).
- MAURESQUE. TB-S9D (Cay. N.); Bull. S. N. H. F., 5th Ser. 4: 309. June 1931; Toreador (Cay.).
- M A Z A M A . TB-M-S9M (Berry 1932); (R o s e Madder \times Mauna Loa) \times (Romola \times Sherbert).
- MAZDA. TB-B7M (Hud. 1931).
- MEINE MUTTER. Patula-IB-M-B3 (Ugr. N.); Gartensch. 13: 6, 113. June 1932; (flavissima × PUMILA CAERULEA); .
- MELISSA. TB-M-S3M (Storer N.). MELODY MOON. TB-S4M (Shects N.); (ALLURE × VESPER GOLD).

- MENUET. TB-S9M. (Cay. N.); C.M., S. N. H. F., 1932; Bull. S. N. H.F. 5th Ser. 5: 262. June 1932.
- MIAMI TAN. TB-EM-S7L (Sheets N.).
- MIDNIGHT SKIES. TB-M-B1D (Simmons N.); (ALCAZAR × NINE WELLS); □.
- MIKKATEE. Hex-B7D (Wash. 1932); Nes. 1932.
- MILESAWAY. TB-R7D (Miles 1932); (kochi × Souv. DE MME. GAUDICHAU).
- MINNIE FORD. TB-B7M (Tomalin N.); C. M., R. H. S. 1932; Gard. Chron. 3rd Ser. 91: 481. 25 June 1932.
- mississippiensis. Hex-B (Alex.-E.J. 1931); Bot. Int. Irid. Gulf States 1931.
- MISSONA. Patula-IB-M-B7M (Ugr. N.); Gartensch. 13: 6, 113. June 1932; (flavissima × Hungarica); Kazimir Missiona;

 ...
- MISSOURI. TB-M-B3M (Grinter N.); (BLUE RIBBON × SENSATION); □.
- MOKANNA. Jap-Db1-6 (Nes. N.).

 MOSAIC KING. TB-Y9M (Sheets
 N.); (CAMELIARD × MME. HENRI
 CAYEUX).
- MOURNING DOVE. IB-M-W2D (Toedt 1932).
- MRS. F. V. CRANE. TB-F-R1M. (Donahue N.); (APHRODITE × SOL-FERINO); □.
- MRS. F. W. TOMALIN. TB-S6L (Tomalin N.); Gard. Chron. 3rd Ser. 91: 452. 11 June 1932; (Moon-LIGHT × BRUNO).
- MRS. H. R. MOORE. Spur-W4 (Fryer Jr. 1928); Fry. Nur. 1928; Wayman 1932; (SPURIA AUREA× orientalis).
- MRS. J. L. GIBSON. TB-B7D (Gibson 1930); Lowe 1930; Gard. Chron. 3rd Ser. 83: 423. 9 June 1928; Gard. Ill. 52: 343. 24 May, 1930;

Gold Medal, Iris Soc. (Eng.); *Maizie Lowe* (not approved one).

MRS. MAURICE PRICHARD. IB-84 (Per. 1915); Maurice Pritchard (Schreiner).

MRS. R. C. BOETTCHER. TB-E-R3M (Allen N.); \Box .

MRS. TERRIL. IB-M-S9M (Black N.); (Afterglow ×);

MYRTLE. TB-B7D (Fry. 1927); Fry. Nur. 1932.

NABOB. Jap-Db1-6 (Barber 1932). NAIROBI. Jap-Sg1-6 (Barber 1932).

NATCHEZ. Spur-Y3L (Wash. 1932); Nes. 1932.

NEQUANEE. Jap-Db1-6 (Barber 1932); Nestor (Barber).

NESKOWIN. Jap-Db1-6 (Barber 1932); Nubian (Barber).

NEU BLEU. Hex.-S3M (Wash. 1932); Nes. 1932.

NEW WINDSOR. TB-R1D (Hud. 1931).

NEW YORK. IB-M-W2 (Kat. N.); □.

NINIGRET. TB-M-S5M (Hill N.);
□.

NORMA GAGE. TB-F-R1L (Gage N.).

NORTHESK. TB-M-B7D (Spender N.); (Unnamed seedlg. \times CARDINAL); \square .

OBANGA. Hex-B1M (Wash. 1932); Nes. 1932; *Obanca*.

OCTOBER OPERA. IB-M-FF-S9D (Sass-H.P. 1932); Hill-H.M. 1932); □.

OCTOROON. Jap-Sg1-5 (Barber 1932); Orchid (Barber).

OKILISA. Hex-B1M (Wash. 1932); Nes. 1932).

OLD PIRATE. TB-Y9M (Sheets N.); (GEO. YELD × OMAHA).

OLD TAPESTRY. TB-S9M (Sheets N.); (MY MARYLAND × RED WING).

OLIETT. DB-E-B7D (Fellows N.).
OLIVE WHITE. TB-E-FF-W4
(Sass-H.P. 1932); Toedt 1932;
Hill-H.M. 1932; Stoner 1932; □.
OMPHALE. TB-R3M (Cay. N.).

oolopha Coronicristatae (Alex.-E.J. 1931); Bot. Int. Irid. Gulf States 1931.

ORIANA. TB-F-W1 (Sass-H. P. N.); (LADY FOSTER × white IB).

OSANA. Hex-S3M (Wash. 1932); Nes. 1932.

OUTRIDER. Jap-Sg1-7 (Barber 1932).

PALA D'ORO. Jap-Sg1-1 (Nes. N.). paludicola. Radicristatae (Alex.-E. J. 1931); Bot. Int. Irid. Gulf States 1931.

PANOPLY. Jap-Sg1-7 (Barber 1932).

PANTERA. Onc-S4 (Grossh. 1928); Fl. Caus. 1: 253. 1928; lycotis var. pantera, Grossh.

parvicaerulea. Radicristatae (Alex.— E.J. 1931); Bot. Int. Irid. Gulf States 1931

PASTEL SHADES. TB-Y8 (Essig 1932); (MINNEHAHA × MIDWEST).

PATIO DELIGHT. TB-W7 (Sheets N.); (Delight × San Francisco).

PATULA. (Ugr. N.); (flavissima × aphylla), (flavissima × pumila), etc.; Gartensch. 13: 6, 113. June 1932.

PEARLS OF TANG. TB-M-R1L (Mead N.); (HERMOINE × BRUNO). PEGGY PALMER. Jap-Db1-3 Nes.

N.).

PENITENT. TB-B9M (Cay. N.); C. M., S. N. H. F. 1932; Bull. S. N. H. F., 5th Ser. 5: 263. June. 1932; Rev. Hort. 104: 163. 16 July 1932.

PENUMBRA. TB-M-S6D (Berry 1932); (CRUCIBLE × BRUNO).

phoenicis. Coronicristatae (Small 1931); Bot. Int. Irid. Gulf States 1931.

- PINK MIST. TB-M-R7L (Hires N.).
- PITRE. IB-Y9M (Cay. 1932); C. M., S. N. H. F. 1932; Bull. 5th Ser. 5: 262. June 1932.
- POLAR KING. TB-M-FF-W4 (Donahue 1930); H. M., A. I. S. 1931; A. M., M. H. S. (Oct.) 1931; A. M., A. I. S. 1932; (MOONLIGHT) × (DOMINION ×).
- PORTHOS. Jap-Sg1-6 (Nes. 1932). POSEIDEN. TB-SIM (Toedt 1932). PRESAGE. TB-Y9 (Cay. N.); C. M., S. N. H. F. 1932; Bull. S. N. H. F., 5th Ser. 5: 261. June 1932; Rev. Hort. 104: 163. 16 July 1932.
- PRINCE PEACOCK. TB-M-S3M. (Thom.-S. 1932); Pfeif. 1932; The Peacock.
- PURPLE BABY. DB-E-S3D (Ouden N.); (FORMOSA ×).
- RABOLIOT. TB-Y4D (Cay. N.); C. M., S. N. H. F. 1932; Bull. S. N. H. F., 5th Ser. 5: 262. June 1932.
- RAINBOW FRAGMENTS. TB-S3D (Sheets N.); (SEQUOIAH \times KING TUT).
- REDALGA. TB-S8L (Cay. 1932); C. M., S. N. H. F., 1932; Bull. S. N. H. F. 5th Ser. 5: 262. June 1932. RED BEAUTY. IB-M-R9M (Gage
- N.); (SEMINOLE × mixed pollen).
 RENOWN. TB-S7L. (Sheets N.);
- (EVADNE × CAROLINE E. STRINGER). REPOSE. TB-M-S1M (Loth. N.); (SINDJKHA × SOUV. DE MME. GAUDI-
- CHAU); □.
 RHAGES. TB-F-W2 (Mead N.).
- RHODORA. TB-F-R7 (Sass-H.P. N.); (EUPHONY × No. 40F2).
- RICARDI ALBA. TB-W (Yr. Bk. Iris Soc. (Eng.) 23, 1932.
- ROBERT. TB-F-S4L (Ayres; Emig. N.); ((NANCY ORNE × DOMINION) × (SHERBERT)) × ((TUSCANY

- $G \ O \ L \ D) \ \times \ yellow$ -blue seedlg. of (Dominion \times (Yellow seedlg. of Caterina)).
- ROBERT SCHNEIDER. TB-F-B7D (Schneider N.); □.
- ROSA RING. TB-E-B7D (Hud. 1932); \Box .
- ROSEBUD. DB-E-S9D (Loth. N.); (CURIOSITY × ORANGE QUEEN).
- ROSEMONT. TB-F-R3D (Hall N.); (EDGEWOOD) × ((LENT A. WILLIAM-SON) × (LEDA ×——)).
- ROWANCROFT PURPLE. DB-E-B7D (Blacklock 1932); Rowan. 1932.
- ROWANDIZ. Jap-Sg1-7 (Nes. N.).
 ROYAL RUTH. TB-M-B3D (Gotts.
- N.); (CANOPUS × ARCHEVEQUE); □. ROYAL SCOT. TB-S7M (Sheets N.); (RED WING × MY MARYLAND).
- RUBY ROSS. TB-S9M (Hud. 1931). RUDDIGORE. TB-F-S9D (Mur. 1932); (IMPERATOR × IRIS KING).
- RUDDY DAWN. TB-F-S4. (Sass-H. P. N.); (KING TUT × KING MIDAS).
- RURITANIA. Jap-Db1-6 (Barber 1932); Renown (Barber).
- SALMACIS. Jap-Db1-5 (Nes. 1932). SAN ANTONIO. TB-M-Y5L (Allen N.); [].
- SAN TOY. DB-E-S7L (Sheets N.); (SYRA × GRAMINEA).
- SAVANNARUM ALBA. Trig-WW (Royal P. 1932); Nes. 1932; savannarum album.
- SAVANNARUM ROYALI. Trig-B1D (Royal P. 1932); Nes. 1932.
- SAVANT. Jap-Sg1-6 (Barber 1932); Sinbad (Barber).
- schizolopha. Coronicristatae (Alex.— E.J. 1931); Bot. Int. Irid. Gulf States 1931.
- SENECIO. Vinic-Y4L (Coll. Peck.-Louisiana N.).
- SEWANEE. Hex-S1L (Wash. 1932); Nes. 1932.
- SHAH JEHAN. TB-FF-S9D (Neel 1932); Orp. 1932; □.

- SHASTA GOLD. TB-S4L (Sheets N.); (SHASTA × VESPER GOLD).
- SHELL PINK. TB-S7L (Mur. 1932); Orp. 1932.
- SHINING WATERS. TB-E-B1
 (Essig 1932); ((CATERINA × MARIAN MOHR) × (CALIFORNIA BLUE))
 × (UNCLE REMUS × MOA); □.
- SHOT SILK. TB-M-S7L (Mur. 1932); Prelim. Comm., R. H. S. 1932; (APHRODITE × AMBER).
- SIBIRICA CRISTATA. Sib-B7 (Vilm. 1904); not formally intro.; seedlg. of large lilac siberica; Rev. Hort. 104: 163. 16 July 1932.
- SIR JOHN EATON. TB-M-B3D (Brethour 1915); Rowan. 1932; (ALCAZAR × AMAS); □.
- SIR KNIGHT. TB-M-B3D (Ashley 1932); (SOUV. DE MME. GAUDICHAU × CARDINAL); .
- SISTER SU. TB-B9D (Hud. 1931). SMOKE. DB-E-B3 (Sheets N.).
- SMOKE. DB-E-B3 (Sheets N.). SNOWCREST. Sib-W4 (Gage 1932); (EMPEROR × SNOW QUEEN).
- SNOW SHADOW. TB-M-W3 (Nic. 1932); (MISS WILLMOTT×CARDINAL); □.
- SNOWSPRITE. TB-EM-W1 (Berry N.).
- SON ROBERT. TB-EM-S6L (White-C. G. N.); (MIRASOL × W. R. DYKES).
- SOURIRE DU PRINTEMPS. TB-B3M (Cay.-F. N.); Bull. S. N. H. F., 5th Ser. 4: 309. 25 June 1931.
- SOUTHERN CROSS. TB-F-S9M (Burgess N.); (AURELLEXMRS. VALERIE WEST).
- SPECIAL. TB-MF-B1D (Hud. 1932); Wayman 1932; □.
- SPRING BEAUTY. TB-E-R7L (Gers. N.); (GEORGIA × CAROLINE E. STRINGER); [].
- SPRING GLORY. TB-B7D (Sheets N.); (Purple Glory × King Tut.)
- STANWIX. TB-F-B3M (Hall N.); (Princess Beatrice ×———).

- S T U D I O. TB-F-S3M (Donahue N.); (ASIA \times ); \square .
- SUMMER GLOW. TB-Y9 (Sheets N.); Southern Glow.
- SUNMIST. TB-M-W6 (Nic. 1932); (MOONLIGHT × SNOW WHITE); [].
- SUNNY BOY. DB-E-Y6M (Ouden N.); (Bride ×——).
- SUNNY SOUTH. TB-S4M (Sheets N.); (TOPAZIN × ROMANCE M URRELL).
- SUN PRAIRIE. TB-S4M (Sheets N.); (Prairie Gold × Ochracea).
- SUPREMACY. Jap-Sg1-6 (Barber 1932); Stormcloud (Barber).
- S W E E T AUBURN. TB-E-W7. Fewkes N.); (pallida \times ) \times (TRAUTLIEB); \square .
- SYLVAN GOLD. TB-S7L (Sheets N.); (AMERIND × OPHELIA).
- TASKONA. Fulv-vinic-S4L (Wash. 1932); Nes. 1932.
- TASMAN. TB-F-B3M. (Burgess N.); (LADY FOSTER × DOMINION).
- TAYGETA. TB-W2 (Bun. N.); Yr. Bk. Iris Soc. (Eng.) 66. 1932.
- TENAYA. TB-E-R1. (Essig 1932); (ALCAZAR × SOUV. DE MME. GAUDI-CHAU) × (CARDINAL); [...].
- TINY TREASURE. DB-E-Y4L (Sheets N.); (ORANGE QUEEN \times YLO).
- TONAWANDA. TB-M-S9M (Storer N.).
- TONKA IB-M-R1L (Schneider N.). TUALATIN. Jap-Sg1-7 (Barber 1932); Tapestry (Barber).
- TULSA. Hex-R1D (Essig 1932); S. Cal. 1932; (fulva × Dorothea K. Williamson).
- TYROLER. TB-F-R3M (Schneider N.); (Ambassadeur × seedlg. similar to Knysna).
- VAGABOND KING. TB-B9M (Sheets N.); (KING TUT × AVA-TAR).

VALERY GERMANIS. Patula-IB-E-B7L (Ugr. N.); Gartensch. 13: 6, 133. June 1932; (flavissima × HUNGARICA); Germanis; ...

venulosa. Radicristatae (Alex.-E.J. 1931); Bot. Int. Irid. Gulf States 1931.

VERNAMONT. Ev-Dwf-B7M (Coll. Rydberg, W. Va.-Small 1929); Nic.-Jr. 1932; mountain form of verna.

VERNAPIED. Ev-Dwf-B (Coll. Virginia-Nic.-Jr. 1932); Nic.-Jr. 1932; Piedmont form of verna.

VESPER MOON. TB-S4L (Sheets N.); (VESPER GOLDXYELLOW MOON).

VIENE. TB-R1M (Cay. N.); A. I. S. Bull. 42: 56. Jan. 1932.

VIOLET PRINCE. DB-E-B9D (Ouden N.); (BRIDE ×).

WAR PAINT. TB-S7M (Sheets N.); (KING TUT × ALLURE).

WAWASEE. TB-M-B1L (Richer N.); □.

WELLINGTON. TB-F-R3D. (Burgess N.); (Seedlg. × Mrs. Valerie West).

WENA GOODALL. Futv-vinic-R2L (Wash. 1932); Nes. 1932.

WHITE DRESS. Jap-Db1-1 (Barber 1932).

WHITE NILE. TB-M-W2 (Mead-Riedel N.); (Los Angeles × True Charm).

WINEFRED. TB-M-R7L (Storer N.); □.

WOTAN. TB-M-B7D (Grinter N.); (Seedlg. No. 4-28 × DOMINION);

W. W. WALLACE. IB-M-B3M. (Lockard 1922).

YAZOO. Hex-S1L (Wash. 1932); Nes. 1932.

YELLOW BANKS. IB-M-Y5D (Richer N.); (YELLOW RAIL \times FAIRY).

Y E L L O W WONDER. TB-S4D (Sheets N.); (Nebraska × W. R. Dykes).

Irises Approved in 1932, but not Registered

This list contains certain varieties which have been approved for registration, but because the data has been slow in coming in, the names are included here and marked "pending," and when registration becomes complete on these it will not be necessary to publish in January 1934 Bulletin. Such publication serves the added purpose of advising breeders that these names are no longer open for use by them. This action is in no way to set a precedent for the future.

ABYSSINIE. TB-(Cay. N.); pending.

ADMIRAL. Eng-M-B7D (San.-L.W. 1932); Cooley 1932.

AINTABENSIS. Ret— (Baker-G. P. 1932); Hocker 1932; form of histrioides; Gard. Ill. 53: 537. 12 Sept. 1931; Yr. Bk. Iris Soc. (Eng.) 62. 1931; Gard. Chron. 3rd Ser. 89: 137. 14 Feb. 1931.

ALABAMA. TB-B1L (Given 1929).

ALCHILLA. TB-B7M (Bun. N.); Gard. Chron. 3rd Ser. 91: 482. 25 June 1932.

ALENESFORD. Eng-B7L (San.-L. W. 1932); Cooley 1932.

ANCHISES. TB- Yr. Bk. Iris Soc. (Eng.) 44. 1932; pending.

ARLINDE. (Cay. N.); pending.

ATHOA. DB-R1M (Foster 1893); Hocker 1932; Gard. Chron. 1: 711. 1893; Gartenf. 42: 596, 1893. ATTILA. TB-S3D (Cay. N.); C. M., S. N. H. F., 1932; Bull. S. N. H. F., 5th Ser. 5: 262. June 1932.

AUBURN GLORY. TB- Stone 1932; pending.

AUTUMN. IB-E-B3M (Sass-H. P. N.); Jour. R. H. S. 56: Pt. 1, 91. Jan. 1931. (MME. CHEREAU × AMAS).

BABY DURRAND. IB-MF-86L (Loth. 1932); Sturt. 1932; Baby Durrande (Schreiner 1932).

BETELGEUSE. TB-S9D (Bun. 1922); (MRS. VALERIE WEST ×); Silver Medal, R. H. S. 1932; Gard. Ill. 54: 375. 18 June 1932; Gard. Chron. 3rd Ser. 91: 431. 25 June 1932.

BETTY NESMITH. TB- (Nes. N.); pending.

BLACK IMP. (Mur. 1932); pending. BLUE LIGHT. TB-B1M (Balfour 1932).

BOBBINGCOURT. TB- (Dykes-K. N.); Yr. Bk. Iris Soc. (Eng.) 43. 1932.

BOLD WARRIOR. TB-Y (Shiloh N.).

BRIGHT BALLOON. IB-E-Y4M (Waller N.).

BRISEIS. (Cay. N.); pending.

BUECHLEY GIANT. TB-B (Buechley 1932); Besecker 1932; Blue Giant (Wass.).

BUNNY. (Stern N.); pending.

BURNING BRONZE. TB- (Ayres N.); obsolete.

BURNT ORANGE. TB-S4 (James 1931); Gotts. 1931.

CAF. TB-B1D (Dykes-K. N.);Gard. Chron. 3rd Ser. 92: 58. 23July 1932.

CALENDAL. TB-S6M (Cay. N.); C. M., S. N. H. F. 1932; Bull. S. N. H. F., 5th Ser. 5: 262. June 1932. CAMBUSCAN. TB-S6 (Baker-G. P. N.); Jour. R. H. S. 57: Pt. 1, 73. Jan. 1932.

CENTRAL BLUE. Yr. Bk. Iris Soc. (Eng.) 45. 1932; pending.

CITRICRISTATA ALBA. Radicristatae-WW (Nic.-Jr. 1932).

CLARET GEM. IB-R1M (Groseh. 1932).

CLARETTE. Vinic. (Hoffman 1932); pending.

CLARET WINE. (Stern N.); pending.

CLEWER. TB-S9M (Waterer 1929); Waterer 1929; Contrast; Contrast Waterer; not Janus as listed with 1931 registrations.

COOMBELANDS. Eng-B1D (Blom 1932); Blom 1932; pending.

COPERNICE. TB-S3M (Noteutt 1932); □.

COPPER BRONZE. TB- (Shiloh N.).

CORA TURNER. Pending.

CORYPHEE. TB-Y3M (Vilm. N.);
Rev. Hort. 104: 163. 16 July 1932;
C. M., S. N. H. F., 1932; Bull. S.
N. H. F., 5th Ser. 5: 262. June 1932.

CRATER LAKE. Eng-M-B1M (San.-L. W. 1932); Cooley 1932.
CYRILLO. TB-B7D (Dykes-K. N.); Gard. Chron. 3rd Ser. 91: 482. 25
June 1932.

DABLA. Pending.

DAME BLANCHE. (Cay. N.); pending.

DELFT BLUE, Eng-B1L (Blom 1932); Blom 1932.

DIAVALO. (Stern N.); pending.
DOLABELLA. (Cay. N); pending.
DON JOSE. (Cay. N.); pending.
DOUCE AMIE. (Cay. N.); pending.
DROUEE. TB-S9M (Vilm. N.);
Bull. S. N. H. F., 5th Ser. 4: 307.
25 June 1931.

- DUCA DEGLI ABRUZZI. Eng.-R1L. Bulleri 1932.
- EGLANTINE. TB-R3M (Insole N.); A. M., R. H. S. 1931; Jour. R. H. S. 57: Pt. 1, 72. 1932; Sweet Briar.
- ELEANOR P. HOOK. TB- (Shiloh N.).
- ENION. TB-S3M (Long N.); Jour. R. H. S. 56: Pt. 1, 93. Jan. 1931; (IMPERATOR × OLYMPUS).
- ETRURIA. TB-S9D (Dykes 1932); Ruys 1932; Gard. Chron. **3rd Ser. 87:** 481. 14 June 1930.
- EUTROPE. TB- (Cay. N.); pending.
- FLORISE. TB- (Cay. N.); pending. FONTANESI. Span-B (1855); A. M., R. H. S. 1931; Gard. Chron. 3rd Ser. 89: 440. F. C. C., R. H. S. 1932; Gard. Ill. 54: 375. 18 June 1932.
- FORGET-ME-NOT. TB-B1L (Given 1929).
- FULVAFLAV. Fulv-Y (Millik. 1932); S. Cal. 1932; pending; Yellow Fulva. 1932).
- FUROMAN. Jap-Sg1-1 (Koh.-H. 1932).
- GALE S. HILL. Eng-R7D (San.-L. W. 1932); Cooley 1932.
- GENERAL WINDHAM. Span-S3 Glas. 1932.
- GIGANTICAERULEA ALBA. Radicristatae—Hex—W. (Nic.—Jr. 1932); A. I. S. Bull. 42: 93. Jan. 1932; Giganticoerulea var. Pure White.
- GIRTIE. TB- (Reed-M. N.).
- GOLDEN ARROW. Fulv-R1 (Vioska 1932); So. Biol. 1932.
- GOLDEN GALLEON. (Mur. N.); pending.
- GOLDEN GRACE. (Mur. N.); pending.

- GOLDEN WONDER. Span-Y4L (Byvoet 1918); Bodley 1929; A. M. Haarlem 1918; not the Golden Wonder listed as syn. of Golden Lion.
- GLYCERA. TB-WW (Dykes-K. N); Gard. Chron. 3rd Ser. 92: 58.23. July 1932.
- GRACILIPES ALBA. Ev-W (Per. 1927); Chugai 1932.
- GREY GHOST. TB-S1M (Per. N.); C. M., R. H. S. 1932; Gard. Ill. 54: 375. 18 June 1932; Gard. Chron. 3rd Ser. 91: 481. 25 June 1932.
- HAERERNAI. (Stern N.); pending. HALOPHILA LUTEA. Spur-Y4L Berry 1932.
- HAMILCAR. TB-B3L (Yeld 1900); Back. 1900; Maw 1932; Jour. R. H. S., 53: Pt. 1, 128. Jan. 1928; □.
- HETEROCHROA. Onc. (Grossh. 1928); form of lycotis; Fl. Cauc. 1: 253. 1928.
- HUGO DE GROOT. Eng-B3M rev. (Van W. bef. 1929); Delkin 1929; Van W. 1932.
- HURST. TB-S3L (Waterer 1932); Waterer 1932.
- ITHAQUE. (Cay. N.); pending.
 IVYAVE. TB— Stone 1932; pending.
- JAMES PARISIANA. TB-W2D (James 1931); Gotts. 1931; E. O. James Parisiana; Parisina (James).
- JANUS. Jap-3 (Waterer 1932); Waterer 1932; this was erroneously approved as a TB last year.
- JOAN STERN (Stern N.); pending. JOSSELIN DE JONG. Dut-Y3L (Van T. bef. 1927); Van W. 1932; De Josselin de Jong.
- KAIZERINA. TB-B7M Cheal 1932. KAMET. TB-W2 (Baker-G. P. N.); Prelim. Comm., R. H. S. 1932; Gard.

Chron, 3rd Ser. 91: 484, 25 June 1932.

KANARIA. TB-F-Y4D (Arends 1930; (AUREA × MRS. NEUBRONNER.).

KANIA. Jap-Db1-4 (Waterer 1932); Waterer 1932.

KRINKLES. TB- (Hud. N.); pending.

KUPFERHAMMER. TB - F - Y7D (Arends 1930); Arends 1930.

KURSHID, TB-Y (Baker-G. P. N.);
Gard. Chron. 3rd Ser. 92: 58. 23
July 1932.

LADON. Sib- Yr. Bk. Iris Soc. (Eng.) 45. 1932; pending.

LADY PETO. (G. & A. N.); pending.

LADY PONSONBY. (G. & A. N.); pending.

LAFITTE. Hex-B (Vioska 1932); So. Biol. 1932.

LANSDOWNE. TB-; pending.

LEUTHA. TB-Y4L (Long N.); Jour. R. H. S. 56: Pt. 1, 96. Jan. 1931; Lentha.

LINGERIE. Eng-B7L (San.-L. W. 1932); Cooley 1932.

LOUISIANA. TB- (Given 1929).

LUCILLE LLOYD. TB- Pending.

lycotis. Onc.-S6D (Wor. 1915);Bull. Caue. Mus. 9: 1915; Fl. Cauc.1: 253. 1928, Correvon 1930.

LYCOTIS MAGNIFICA. Onc-R3D (Grossh. 1928); Fl. Cauc. 1: 253. 1928; lycotis var. magnifica, Grossh.

LYCOTIS TYPICA. One-S4 (Grossh. 1928); Fl. Cauc. 1: 253. 1928; lycotis var. typica, Grossh.

LYNCEE. IB-W2 (Vilm. N.); Rev.
Hort. 104: 163. 16 July 1932; C.
M., S. N. H. F. 1932; Bull. S. N. H.
F., 5th Ser. 5: 262. June 1932.

MADAME ALBERT NOCARD. TB-89M (Tur. 1931); Tur. 1931; (GOLIATH ×).

MAGNA CHARTA. TB-W2D (Dan. 1931); Brand 1932.

MALIKOKO. TB- (Cay. N.); pending.

MARDI. TB-S6 (Baker-G. P. N.);
Prelim. Comm., R. H. S. 1932. Jour.
R. H. S. 57: Pt. 1, 73. Jan. 1932.

MARGARET PERRY. TB- (Per. N.); Gard. Chron. 3rd Ser. 91: 482. 25 June 1932.

MARTIGUES. (Cay. N.); pending. MASCARILLE. (Cay. N.); pending.

MASQUE. TB-W3 (Cay. N.); C. M., S. N. H. F. 1932; Bull. S. N. H. F., 5th Ser. 5: 262, June 1932.

MEMORIAE MAGDALENAE. (Cay. N.); pending.

MINNIE BEACH. TB- Pending.

MME. DARIDAN. TB-S6L (Den. N.); Bull. S. N. H. F., 5th Ser. 4: 309. 25 June 1931.

MME. TAHER EL LOZY. (G. & A. N.); pending.

MOEVE. Sib-WW. Foerster 1932.

MONSIEUR MILDRED. TB-83M (Den. N.); Bull. S. N. H. F., 5th Ser. 4: 309. 25 June 1931; M. Mildred.

MORNING MAGIC. Sib-E-R1 (Clev. 1931).

MOUNTAIN POOL. Sib-B1 (Clev. 1931).

MOUNT RAINIER. Eng-WW (San.-L. W. 1932); Cooley 1932.

MRS. ERNEST CANT. (G. & A. N.); pending.

MUSSOLINI. TB-R3M (Dykes-K. N.); Silver Medal R. H. S. 1932; Gard. Ill. 54: 375. 18 June 1932.

NAUTONIER. (Cay. N.); pending. NELSONI. Laev-B. Nes. 1932; Carolina Nelsoni.

NERTO. (Cay. N.); pending. NETTY. Eng-B1L (Blom 1932). NIVOSE. (Cay. N.); pending.

OHIO STATE BLUE. TB-B1M (Ohio St. U. 1924); Gottse. 1931. ORLINDA. (Cay. N.); pending.

OUARGLA. (Cay. N.); pending.

OXFORD BLUE. Ret-B1D (Carter 1932).

PACIFICO. Eng-FF-W1 (San-L. W. 1932); Cooley 1932.

PALLIDA BLUE. TB-B1M (Toedt ?); Arbor; May Seed 1932.

PEARL WHITE. Ev-WW. Nes. 1932; Cristata Pearl White.

PERDILLA. TB-B1L. Cheal 1932. PERSEPOLIS. TB-R3M (Cay. N.); C. M., S. N. H. F., 1932; Bull. S. N. H. F., 5th Ser. 5: 262. June 1932.

PETREA. TB-R1M (Wal. N.); Jour. R. H. S. 56: Pt. 1, 93. Jan. 1931. POMMERS. TB-Y4M (Dykes-K. N.); Gard. Chron. 3rd Ser. 92: 58. 23 July 1932.

PRINCESS IRENE. Eng-W8 (Papen. 1928); Chaut. 1932.

PROFESSEUR DUBOIS. TB-M-R3M (Den. 1930); Mil. 1930.

PRUNELLA. (Mur. 1932); pending. PULCINELLA. (Cay. N.); pending.

RAHERE. TB-S7D (Baker-G. P. N.); Gard. Chron. 3rd Ser. 92: 58. 23 July 1932.

REDSTART. TB- (Bliss 1921);

Red Star.

RHODES. TB-B1M (Wal. N.); Jour. R. H. S. 56: Pt. 1, 93. Jan. 1931.

RICARDI OMEGA. Pending.

R. M. COOLEY. Eng-B1L (San.-L. W. 1932); Cooley 1932.

RONDA. TB-M-R7M (Mohr-Mit. 1932); Salb. 1932.

ROSE GOLD. TB- Engle 1932; pending.

ROY. TB-R1M (Petel. 1932); Petel. 1932.

RUTHENICA NANA. Ruth-S4 Chugai 1932; Hocker 1932; Thom. & Morg. 1932.

SANTIAM. Eng-B1L (San.-L. W. 1932); Cooley 1932.

SHEILA GIBSON. (G. & A. N.); pending.

SINBAD. Jap-Db1-3 (B. & A. 1931); Nes. 1932.

SPRING SKIES. DB-E-B1L (Field 1929).

SPADASSIN. TB (Cay. N.); pending.

ST. GEORGE. TB-R9D (Waterer 1932); Waterer 1932.

STUDIOTEN. TB- (Donahue 1932); Egel. 1932 as *Studio* (not the true variety); name may be changed.

STYLOSA ALTAFLORA. Ung-B (Millik. 1932); S. Cal. 1932.

SULPHUR. DB-E-S4M (G. & K. 1928).

SUNBROWN MAID. Pending. SYBELLA. (Stern N.); pending. SYMPHONIE. (Cay. N.); pending.

TAHITI. Eng-EE-B7L (San.-L. W. 1932); Cooley 1932.

TENTATEUR. TB-S9L (Cay. N); C. M., S. N. H. F. 1932; Bull. 5th Ser. 5: 262. June 1932.

THALESTRIS. TB-S1L (Dykes-K. N.); Gard. Chron. 3rd Ser. 92: 58. 23 July 1932.

TIMGAD. (Cay. N.); pending.

Austin 1932.

TIMOTHEE. 1B-F-S9M (Vilm. N.); Rev. Hort. 104: 163. 16 July 1932; C. M., S. N. H. F. 1932; Bull. S. N. H. F., 5th Ser. 5: 262. June 1932. TINGITANA AZUREA. Span-B1D

TITUREL. TB-B1M (G. & K. 1926). TROPHEE. (Cay. N.); pending.

TURK. IB-B7M (Howard 19—); Berry 1932.

TWO-FOR-TEA. IB-M-B7M (Auten 1932); Auten 1932.

VILLE D'ORLEANS. IB-Y4 (Tur. 1932).

VOLTIGEUR. TB-R3M (Cay. N.);C. M., S. N. H. F. 1932; Bull. S. N.H. F., 5th Ser. 5: 262. June 1932.

WALTER GODFREY. TB-S3D (Dykes-K. N.); Prelim. Comm., R. H. S. 1932; Gard. Chron. 3rd Ser. 91: 484. 25 June 1932.

WHITE WINDHAM. IB-M-WW (Sass-H. P. 1928); Snyder 1932; WINDHAM ×); Mrs. Wiedham; White Weidham.

WINEGOLD. TB-R1M (Smith-J. ?); Smith-J. 1932.

WM. C. KISNER. TB-M-R9D (Farr-Doub 1926).

YRAM. TB- Yr. Bk. Iris Soc. (Eng.) 45. 1932; pending.

Names Under Investigation.

Some of these may prove synonyms, but those which may be found, after investigation, to be new varieties with approvable names will then be approved, and in some instances registered.

Acteon. Yr. Bk. Iris Soc. (Eng.) 44. 1932.

Ami François. TB- Exhibited by Thiebaut, Paris, France, 1932.

Asahi-minato. Jap-Db1-6. Chugai 1932.

Asigasa. Jap-6. Maxwell 1932.

Azuma-botan. Jap-Db1-6. Chugai 1932.

Azuma-no-yusho. Jap-Db1-7. Chugai 1932.

Bakushu-no-ten. Jap-Db1-7. Chugai 1932.

Bearded Lady. TB- Prior 1932.

Beauty of Yamamoto. Jap-6. Chugai 1932.

Benifuyo. Jap-Db1-6. Chugai 1932. Blue Aphrodite. TB-B7M. Keller 1932.

Blue Beauty. TB-B1L. Thom. & Morg. 1931.

Blue Hesperus. Eng-B. Ellis 1932.

Calico. Jap-Db1-7. Smith-G. N. 1932.

Calypso. TB-Y4. Artin. 1932.

Chedalle. TB-B8M. Artin. 1932.

Chitose-no-homare. Jap-6. Chugai 1932.

Chohitzubame. Jap-Db1-1. Chugai 1932.

Clothilda. Eng-B1M. Thoolen.

Daieikwan. Jap–Dbl–6. Chugai 1932.

Dragon's Jewel. Jap-Sg1-2. Nes. 1932.

Ejo-no-kagari. Jap-Sg1-7. Chugai 1932.

Embi-no-waza. Jap-Db1-7. Chugai 1932.

Emilia. TB-B9M. Peed 1932.

Esnui-No-Kio. Jap-6. Stone 1932.

Esuro-No-Kigoro. Jap-1. Stone 1932.

Fascination. Eng-B1L. Smith-J. Fuji-gasumi. Jap-Bb1-1. Chugai 1932.

Fuji-no-akebono. Jap-Db1-7. Chugai 1932.

Fukumusume. Jap-Db1-6. Chugai 1932.

Golden. Sib-S1. Hamon. 1932; obsolete.

Hakkaku - no - nemuri. Jap-Db1-1. Chugai 1931.

Hakuryo. Laev-W8. Chugai 1932.

Hashigakari. Jap-Db1-7. Chugai 1932.

Hatsu-gasumi. Jap-Db1-1. Chugai 1932.

Ibukuyama. Jap-Db1-1. Chugai 1932.

Imabijin. Jap-Db1-6. Chugai 1932.

J. A. Hayden. Jap-Db1-6 (Weed 1931); Cooley 1932.

Jamo-no-Kumi. Jap-5. Tur. 1932.

[74]

Kari-no-misao. Jap-Db1-7. Chugai 1932.

Kirin, Jap-Sg1-5. Chugai 1932. Kokinran, Jap-Db1-7. Chugai 1932. Koroho. Jap-Db1-1. Chugai 1932.

Kumocki-Ginna. Jap- Engle 1932. Kumono. Jap-Db1-2. Cooley 1932. Kumo-no-mine. Jap-Sg1-5. Chugai

1932.

Kuruma-dome. Jap-Db1-1. Chugai 1932.

Mangetsu. Jap-Db1-1. Chugai, 1932. Matsushima, Jap-Db1-6. Chugai 1932.

Mikado-no-hikari, Jap-Db1-7. Chugai 1932.

Mikuni-no-hikari. Jap-Sg1-7. Chugai 1932.

Miyuki-nishiki. Jap-Db1-7. Chugai 1932.

Mizuho-no-homare. Jap-Db1-7. Chugai 1932.

Mospey Laigen. TB-Y3D rev. Cheal 1932.

Mrs. Woodhouse. Spur-B. Nes. 1932.

Nafarcha. Span-B3L. Terry 1932. Nagao-zan. Jap - Db1 - 6. Chugai 1932.

Nishika. Jap-Sg1-7. Cooley 1932.

Okino-kagari, Jap-Sg1-6. Chugai 1932.

Oki - no - kamone. Jap-Sg1-7. Chugai 1932.

Orientalis alba. Sib-W. Chugai 1932.

Owsara. Jap-Db1-5. Chugai 1932.

Owyashima. Jap - Db1 - 5. Chugai 1932.

Rosabelle. TB-R1M. Kaye 1932. Royal Blue. Sib-B. Taylor 1932.

Sairo-no-en. Jap – Sg1 - 1. Chugai 1932.

Sarashino. Jap-Db1-1. Chugai 1932. Shikari. Jap-Db1-7. Cooley 1932.

Shojo. Jap-Db1-6. Chugai 1932.

Someginu. Jap-Db1-6. Chugai 1932. Sotorihime. Jap-7. Chugai 1932.

Sure-no-kagaki. Jap-Db1-7. Chugai 1932.

Suzumi-no-yukata. Jap-Db1-7. Chugai 1932.

Tamagawa-zome, Jap-Sg1-7. Chugai 1932.

Tamporo. Jap-Db1-6. Chugai 1932. Tatsuta-hime. Jap-Sg1-1. Chugai 1932.

Tenjo-no-mai. Jap-Db1-6. Chugai 1932.

Ten-yu. Jap-Db1-6. Chugai 1932.

Thor. RC-S (Van T. bef. 1907 (?)); Hocker 1932.

Tuji. Jap-Sg1-7. Cooley 1932.

Ujaka. Jap-Db1-1. Ruys 1932. Unica. RC-S8. Bulleri 1932.

White Edge. DB-W (F. J. Wiener N.); Gard. Chron. Am. 36: 8, 264. Aug. 1932.

Yamaji-no-tsuyu. Jap-Sg1-7. Chugai 1932.

Yuki-kagami. Laev-1. Chugai 1932. Yume-no-ukihashi. Jap-6. Chugai 1932.

Unapproved Names 1932.

Agni. TB-R7M (Cay. N.); C. M., S.
N. H. F. 1932; Bull. S. N. H. F.,
5th Ser. 5: 262. June 1932; name may be changed.

Ajirogi. Jap-Db1-5. (Chaut. 1932); This and other seedlings by this firm were named by comparison with Japanese color plate similarly named. Appolo. Jap-Db1-1. Tur. 1932. Agros. TB-Y4L (Cay. N.); C. M.; S. N. H. F. 1932; Rev. Hort. 104: 163. 16 July 1932; Bull. S. N. H. F., 5th Ser. 5: 262. June 1932. Azumahudari. Jap-Sg1-1 (Chaut.

1932).

Beaucis. TB-Y9M (Mil. bef. 1923); Bancis.

Blue Ridge. Sib-B1L (Clev. 1929); Nes. 1932.

Blue Wings. Sib-B1M (Clev. 1929); Nes. 1932.

Catherine. Jap-5. Nes. 1932.

Cherry Blossom, Jap-Sg1-2. Whit. 1932.

Coffee. IB-M-S6D (Scheffy 1932).Conways Pink. Hud. 1932. Listed without permission.

Destiny. TB-S3D (Bliss N.); A. I. S. Bull, 43: 31. Apr. 1932.

Edlmann Seedling. Sib-W7 (Edl.; Nes. 1931).

En-U-No-Sora. Jap-Db1-F-6 (Chaut. 1932).

Erebus. TB- (Bliss N.); A. I. S. Bull. 43: 31. Apr. 1932.

Ganymede. Jap-Db1-5. Tur. 1932. Giganticoerulea var. Deep Blue. Radicristatae-Hex-B (Nic.-Jr. 1932).

Giganticoerulea var. China Blue. Radicristatae—Hex—BL (Nic.—Jr. 1932).

Hatsu-Gane. Jap - Sg1 - 7 (Chaut. 1932).

Hatsu-O-Den. Jap - Db1 - 1 (Chaut. 1932).

Jakago-No-Nami, Jap-Db1-4 (Chaut. 1932).

Katsura-O-Tako. Jap-Sg1-7 (Chaut. 1932).

Kichibokuo. Jap - Sg1 - 1 (Chaut. 1932).

Kohyo-Barelight. Jap – 6 (Chaut. 1932).

Late White. TB-F-W (Kat. 1932). Light Blue. Eng-B1L. Cooley 1932.

Madcap. TB-B3M. Kat. 1932.

Marianne. TB-R1L (Gottsche 1932); Toedt 1932.

Miyatogawa. Jap-5 (Chaut. 1932).

Momiji-No-Maki. Jap-Db1-6 (Chaut. 1932).

Neola. DB-S3D (Sass-H. P. 1932); Emig. 1932.

Nymphe. Jap-Db1-5 (Waterer 1932); to be changed.

Ogi-No-Mati. Jap-Sg1-6 (Chaut. 1932).

Ogi-No-Mato. Jap-Sg1-6 (Chaut. 1932).

Oik-No-Shuraho. Jap-Sg1-1 (Chaut. 1932).

Orcis. (Hoffman N.).

Pumila Orchid. DB-WW (G. & K); Koehler 1932.

Ran. Jap-Db1-6 (Chaut. 1932).
Royal Blue. Eng-B1D. Cooley 1932.
Ruby Queen. TB-R1M (Baker-G. P. N.); Gard. Chron. 3rd Ser. 92: 58.
23 July 1932.

Sapho. TB-B9M (Cay. N.); C. M.,S. N. H. F., 1932; Bull. 5th Ser. 5:262. June 1932.

Satrape. TB-B3M (Cay. N.); C. M.,S. N. H. F. 1932; Bull. 5th Ser. 5: 262. June 1932.

Savannarum Azurea. Trig. – B1M (Royal P. N.).

Savannarum Pallidum. Trig.-B1L (Royal P. N.).

Sea Crest. Jap-Db1-4 (Chaut. 1932).Shi-No-Ryo. Jap - Sg1 - 7 (Chaut. 1932).

Shiratonotaki, Jap-Sg1-5 (Chaut. 1932).

Siren. Jap-Dbl-5 (Waterer 1932); to be changed.

Ski-no-rayo. Jap-Db1-6. Nes. 1932.

Snowbound. Jap-Sg1-1 (B. & A. 1931); Nes. 1932. Sturtevant Hybrid. Sib-BD rev. (Sturt.); Nes. 1932. The Beauty. TB-B1L. Thom. & Morg. 1932.
Tomata-Hime. Jap-Db1-4 (Chaut. 1932).

Twin Sisters. TB- (Sass-J.); Hud. 1932; listed without permission.

Tamidare. Jap-Sg1-5 (Chaut. 1932).

Synonyms and Misspellings 1932

As the list of synonyms and misspellings for 1932 comprises over one thousand names it has been thought best not to publish it. The members of the Registration and Check List Committee feel that they have been put to much unnecessary work this year by the careless or, indeed, very evident lack of proof-reading, shown by those who have published Iris names and it is to be hoped that in future this may be avoided as it puts the Society to very great expense besides making labor of herculean proportions for the recorders. The long-suffering members of this committee will be glad to answer questions as to the proper spelling of names etc. if self-addressed stamped envelopes are enclosed with the inquiry. A catalogue without mistakes is welcomed by these workers with the same fervor as a gift of cold hard cash would be by a debtor on the day the mortgage falls due!

BOOKS

From a Sunset Garden, Sydney B. Mitchell, Doubleday Doran & Co. \$3.00.

There is but slight need of recommending a book from such a source to lovers of irises. Mr. Mitchell is at his best as one would expect of any one as deep in his garden as the varied chapters reveal. There are chapters on daffodils, tulips, and annuals, on spring and summer bulbs, on delphiniums, brooms, azaleas and flowering fruit trees which are as valuable to me in New England as the chapters on fuchsias and geraniums are mere creators of envy. The beginners will thrive on his selected lists of perennials or rock-plants or flowering shrubs and we iris people will pore over two extremely meaty chapters on irises, that on breeding being particularly of interest in its records and theories.

Mr. Mitchell has gardened in many climes and he has observed in even more and always with a keen eye for notes and references that may suggest new possibilities of plants that will be worth trying. I hope that such introductions will lead to a wider range of plantings and a greater consideration of effect in many a strictly iris garden. Perennial Gardens by H. Stuart Ortloff, Macmillan Co. \$1.25.

Designed to serve the needs of an amateur gardener this small book is pleasantly presented with a most interesting and unusual number of planting plans carefully keyed. The various garden patterns are of marked interest but their planting, particularly in the smaller areas is often far too simple to provide succession. One hesitates to cavil at what will prove extremely helpful to beginners but much of his use of plants and their maintenance seems to be more theoretical than that of a dirt gardener. Against this we can balance his excellent theories on design and a distinctly readable way of putting his words together.—on the whole a book to be strongly recommended to those who seek to plan rather than just to grow flowers.

VARIETAL NOTES

From England, Australia, and Elsewhere

From Mr. Pilkington in England, from Mr. Wheeler in Australia, and from a scattering of sources have come notes on varieties and their compilation in alphabetical order seems desirable. As the greater number are from England and Australia the individual reports are marked with an Eng. or an Aus. respectively and other references given in full,—the editorial comments added.

Mr. Pilkington writes, "It must be understood and appreciated that many of these irises of American origin behave as differently here in England as some of our English and French productions do in the United States, and that an iris which is recognized as a "first rater" in its country of origin may not be so all the world over. Most of these notes are compiled on observations made in my own garden whilst some part of them are based merely upon isolated notes taken during visits to the Wisley Trial Garden and the gardens of trade growers."

Mr. L. W. Wheeler reports from South Australia on importations from Longfield. "Our iris blooming season finished in early December. Only two of the Williamson 1930 introductions failed to flower—Cantabile and Sandakan but these plants are quite healthy and will surely bloom next season. I made somewhat hurried notes of these irises but hope next year to be more orderly in my records.

ALCANNA (Wmsn) Color its special quality, substance and size as with other Williamson seedlings but so far it grows dwarfish with me. I note that like Dorothy Dietz it bloomed itself to death and is no more. Aus.

AMANECER (Wmsn) Second year, three feet. Compares favorably with more expensive varieties and reminded me of Fismes

which flowers later. Aus.

ANDANTE (Wmsn) An improvement on Germaine Perthuis is a mild term of comparison. They were near one another and though not so large there is a purity about its richness that makes the latter look ordinary by comparison. I have to class it as one of the three best irises in the garden. Aus.

ARGYNNIS (Wmsn) As a garden iris it is vastly superior

to Onyx and this year it is more brilliant than ever. Aus.

ARLINGTON (Simpson) Not particularly struck with this

and the flower spikes are very flexuose. Eng.

AVATAR (Wmsn) Varies in quality, the gold center of some blooms making it quite striking. It may be more consistent in halfshade and may be taller also in shade. Aus.

The stunting of these varieties in Australia is surprising con-

sidering their height in the dryer and hotter sections of the United

Ed. States.

AVALON (Sturt) An iris of attractive coloring but an uncertain performer in my garden at any rate. Eng. An uncer-

tainty due to cypriana blood. Ed.

AZURINE (Wmsn) Gave some odd blooms during the winter and during its proper season flowered very freely. The description "slightly ruffled and irregular in shape" I found described its defects. It would be better otherwise and with somewhat the substance of Azulado. However I like it and a vase of it should make a dainty decoration. It is very free flowering. Aus.

BALDUR (Mor) I don't like it and my opinion has been con-

firmed more than once. Eng.

This is a very distinct iris. The flowers BALDWIN (Sass) are very large and produced very freely. Spikes about 3 feet. Eng.

BANDEROLE (Mor) A tall variegata of bright colorings, 36 inch stems and rather flexuose. A nice bright colored flower though

not as bright as Festive. Eng.

BEAU SABREUR (Wmsn) Compared with Mme. Savouillan it is brighter and has better form and substance though I have always considered the former a first class iris. Beau Sabreur is a champion in its class and I hope it grows taller, as I expect, next year. It stands rough weather. Aus.

BRAVURA (Mohr) A flower remarkable for its very strong

scent. Eng.

"It was a disappointment, being a solid purple lilac without a trace of the rose-red I had read about." Countess Senni.

BRENTHIS (Wmsn) It has justified the description, strong growing and seems to flower right through the season. It is always there and makes a big clump quickly. Aus.

CAMELIARD (Sturt) The color here is too indistinct and

muddy and does not appeal to me. Eng.

CANDLELIGHT (Andrews) A very beautiful and indescribable color blend,—a late bloomer. The stems are very flexuose indeed and my stock of this variety has always suffered more or less

from rot. Eng.

CANTATA (Wmsn) Compared with Dominion it is less pure in color but I think it suffers by comparison. So far the flowers are badly bunched and Dominion is more impressive. You will note that my criticisms are of the ordinary gardener and my comparisons of a more general nature than scientific. Aus.

Dominion is certainly more bunchy under American condi-

tions. Ed.

CAVATINA (Wmsn) A small pale Dolly Madison, 18 in. These pale dull blends should have some other outstanding quality to warrant introduction. Aus.

Here it is much darker, later, straighter stemmed and taller—a smooth handsome flower. Mrs. Peckham.

CHALCEDONY (Wmsn) Soft coloring—quite acceptable for

indoor decoration. 30 in. Aus.

CINNABAR (Wmsn) This iris is not consistent in depth of color or size. Early in the season it was ordinary but it improved

I am afraid our conditions do not suit it. Aus.

CHEYENNE (Wmsn) 30 in., medium size, velvety. I can see no garden difference between this and Mme. Henri Cayeux but of course when established it may prove to be better. An iris in this class should be extraordinary in quality to justify introduction.

COLIAS (Wmsn) A weak grower and only 18 in. in the sun.

24–30 in. in America. Ed.

A very brilliantly colored iris with flowers of good substance,

Eng. good.

CORONATION (Moore) Countess Senni calls it "the best tall yellow I have."

DAMOZEL (Mor) A nice plicata. Eng.

DAUNTLESS (Connell) A "noble" plant. Flowers of fine form and beautifully poised on well-branched stems,—the coloring a bit dull. Eng.

A beautiful deep rose blend that has been almost damned by

its reputation as a "red." Ed.

DECENNIAL (Wmsn) 1st yr. 18 in. It lost some of its coloring when compared to Thrudwang. Later blooms showed a zone of violet in the center of the falls. With its velvety texture and substance it may prove to be a champion when established.

DELIGHT (Sturt) A fair garden plicata. Eng.

DESERT GOLD (Kirk) A lovely pale yellow comparable to Princess Beatrice in form. Ed.

DOLLY MADISON (Wmsn) Flowers of great substance and good form and one of the most attractive blends imaginable—I have, however, in two years' bloom, never yet seen a good spike nor have I seen it exceed 27 in. in height. I am hoping still to grow it

better. Eng.

The most erratic iris in the garden. During July (our midwinter) a single rhizome sent up four stalks crowded together. From then on into the natural flowering season it continued at odd times. In October the stalks were nine inches high and later they reached about two feet. The flowers varied in size and shade, the smaller ones similar to Ramona. At its best the flower is of outstanding quality and compared to Anne Marie Cayeux has more color variation but so far I find Dolly more impressive but I would like to get height and some uniformity in the quality of the individual blooms. Aus.

Generally considered easy and reliable in America. Ed.

DON QUIXOTE (M-M) Those who like blends will be pleased

with this. Eng.

DOROTHY DIETZ (Wmsn) One of the best amoenas and a distinct advance on garden varieties of which we have too few of

this group. Eng.

Some odd blooms are quite beautiful, others quite ordinary. It may do better with us in half-shade and it doesn't behave well later in the season when the heat is greater. It has now bloomed itself to death. Rene Cayeux in the same bed looks coarse and ordinary in comparison. Aus.

With me Dorothy Dietz, like Alcanna, is a great grower but needs thinning frequently and fresh soil added between the plants.

Certainly it does not dwarf. Mrs. Peckham.

DOROTHEA K. WILLIAMSON (Wmsn) I have now tried this in shade, the ground continually moist. The result has been larger flowers, purer color, and possibly less strength in the stems. I value it much more than I did last year. It mixes well with Cacique, especially in vases. The latter is much bigger and more striking. Aus.

DREAM (Sturt) Much thought of when it first appeared over here (about 1921) but it seems to have lost favor. The standards

always collapsed with me and I lost patience with it. Eng.

Never a favorite with Miss Sturtevant. Ed.

DURANDAL The finest tall early red is Durandal, a very handsome iris with the straight pallida form, not branching but a beautiful color. Countess Senni.

EL CAPITAN (Mohr) An enormous flower, the standards flop

in hot weather. Eng.

ENDYMION (Sturt) A lovely blend, of great value in the

general iris planting. Eng.

Its warm buff tone serves as a splendid foil for yellow and bronze but the flower itself is far from good. Ed.

ESTRALLON (Mohr-Mit.) A nice thing, the veining of the

falls perhaps rather too pronounced. Eng.

FESTIVE (Mor) The flowers more rounded than in Banderole, particularly the standards and the color of these is also cleaner. Eng.

Though the plant possesses marked height for a variegata and the poise of the flowers is excellent I have been rather disappointed

in the garden effect. Ed.

FLAMINGO (Wmsn) A real addition. I was again impressed with the striking color and know of no other color like it. Aus.

FORTUNA (Mohr-Mit.) The standards are a wonderful clear

yellow and are the chief attraction of this flower. Eng.

FRIAR TUCK (Wmsn) Quite distinct, a small flower with

deep, rich color; 30 in. Every one likes it. Aus.

FRIEDA MOHR (Mohr) The largest pink toned iris I have ever seen or grown. Was flowering well at the Wisley trials. Spike rather high-branched and not balanced. Eng.

Selected as the best of its tone for New England. Ed.

GERICAULT (Vilm) The finest dark red that I have seen, a bold solid mass of color with more glow than Mme. Henri Cayeux or Nadia.

GLOWING EMBERS (Sturt) Possibly superior to many more expensive. Aus.

A very vigorous and robust plant. The later flowers always "streaked" badly with me. Eng.

GAY HUZZAR (Wmsn) In color it is all the originator says

and we like it very much. Aus.

GEORGE J. TRIBOLET (Wmsn) This is good quality in a class where there are others as good and a few better. Aus. I did not care for this. Eng.

GOLD IMPERIAL (Sturt) A flower of rare finish, small, and

surpassed now by newer introductions. Eng.

GRISELDA (Wmsn) A first quality flower and should remain

so for some time. 30 in. Aus.

GRISETTE (Wmsn) Comparable with Anne-Marie Cayeux, the falls being similar in color and the flower not so large. Very free flowering over a good period. Every one liked it. Compared to Steepway the latter has more color but less gold while Grisette has more substance, is larger and, of course, a better iris but I have always liked Steepway. Aus.

HESPERIS (Wmsn) Dusky but attractive. Aus.

HYACINTHUS (Wmsn) Big, impressive, good substance and more glowing than Glowing Embers. Aus.

JACINTO (Berry) This always does well with me and flowers

over a long period. Eng.

JANE WILLIAMSON (Wmsn) Small and ordinary colored flowers, free blooming but it may not like our heat. Aus.

JULIA MARLOWE (Shull) Another good "doer." Personally I prefer this iris to Morning Splendor on account of its color. Eng.

KATHRYN FRYER (Fryer) A really good late flowering iris. Very free in growth and flower spikes which are rigid and attain

a height of $3-3\frac{1}{2}$ ft. Superior to Argynnis. Eng.

KING KARL (Sass) An iris of most attractive coloring and probably the best Sass production of that period, being superior to Jubilee and Midwest. Flowers consistently at Wisley but has failed

entirely in my garden. Eng.

KING MIDAS (Mead) A very bright bit of coloring combined with beautiful velvety texture. The flower spike does not exceed two feet and owing to its being rather high-branched, gives a bunched effect. An iris which is bound to attract attention owing to the novelty and brightness of its coloring. Eng.

LENT A. WILLIAMSON (Wmsn) This fine iris is universally grown in England. It has now been superseded and must be classed

with Alcazar and others of the good "old brigade." Eng.

Of course I have a fair stock of this now and it varies in quality.

I am not sure what it likes but it is still worth having. Aus.

LEREMA (Wmsn) This began flowering with the earlies, an iris of good quality, not outstanding but not much short of some of the best. Aus.

LONA (Sass) Not as good as King Karl. Eng.

Selected for New England recommendation as a standard variety in preference to King Karl. Ed.

LOS ANGELES (Mohr-Mit.) A plicata quite in a class by itself and much superior to San Francisco in every way. Eng.

LYCAENA (Wmsn) Remains a dwarf with me and will not grow up, while Mildred Presby does so well that I am interested in nothing of less quality. Aus.

MARESCHAL NEY (Wmsn) 1st yr., two feet, large flowers. Of my seven hundred varieties we consider this the champion. Aus.

Very red and very free-flowering. Flowers of nice substance carried on a rather crowded stem. It will take a lot of beating. Eng.

MARY BARNETT (Cumbler) This seems to be a good thing, an improved Princess Beatrice aptly describes it but nevertheless it does not come up to Princess Beatrice in this country as far as size of spike is concerned. Eng.

MAUNA LOA (Berry) A finely built spike and flower but we have several of this type already—furthermore it is decidedly

tender in this country. Eng.

MIDGARD (Sass) This is distinctly attractive as a blend of pale pink and yellow but it has never become established in my garden. Eng.

This went through a hot dust storm that shriveled all other blooms. Rather comparable but, I think, better than Opaline. Aus.

MILDRED PRESBY (Farr) A really good iris and an improvement on Salonique. Eng.

MIRASOL (Mohr-Mit.) A very clean greenish yellow—has

never got going here. Eng.

MLLE. SUZANNE WOOLFRY (Millet) A fine warm purple blend. Countess Senni.

MME. de BEAUMARCHAIS (Millet) A rather dark rose-red self. I saw but one flower but liked it very much. Countess Senni.

MODOC (Essig) About the darkest in coloring of any iris I have seen. The flower loses its form with age and the falls pinch. A strong and vigorous grower. Eng.

MORNING SPLENDOR (Shull) This has proved to be a vigorous doer in this country. Of sombre tone like Tenebrae, it

will not appeal to every one. Eng.

MOTHER OF PEARL (Sturt) This would be a really useful addition to the garden if it would give up its habit of crawling along the ground. Eng.

MUSCATEL (Wmsn) Vigorous, a strong multiplier and of a

color that attracts notice. Aus.

NATHALIS (Wmsn) One of the nice colored lavenders but some of the newer varieties of this color have size and substance. Aus.

NIMBUS (Shull) Too dull. Eng.

OLD IVORY (Sturt) The flowers I saw were all badly bleached by sunshine, otherwise nice. Eng.

OLIVE MURRELL (Mur) A warm color like fine rose-ash

and tan. Countess Senni.

ONYX (Wmsn) Very free over a long period. I have noted this for two years and it is less effective than many older cheap ones. Its "delicacy and beauty at close range" is very transient. Aus.

OPALINE (Wmsn) Distinct color but substance and form

quite second rate. It may improve when established. Aus.

ORUGA (Mohr-Mit.) The very pronounced beard is the only excuse for the existence of this variety. Eng.

PAUL HUET (Cay) A tall big very rich blend of pansy

purple with pinkish reflections. Countess Senni.

PRIMROSE (Sturt) A delightful yellow, a real garden iris. My own Kenya is very like it. It is not for me to say which is best—probably Primrose but Kenya has it for free-flowering and rapid increase, over here at least. Eng.

PURISSIMA (Mohr-Mit.) The finest white. I cannot conceive of anything finer; $5-5\frac{1}{2}$ ft., perfect in every way. Eng.

Mr. Pilkington must be impatient to see the flock of American whites of which the New England Committee has selected Easter Morn, Polar King, and Venus de Milo as of equal interest to the connoisseur. Ed.

PURPLE HAZE (Sass) Coloring out of the ordinary but the

plant has never done well. Eng.

RASAKURA (Wmsn) Compared with Romola, an improvement, having broader falls and a deeper color even in its first season. Aus.

RED DOMINION (Ayres) 30 in. on a newly imported plant. The flowers are about perfect in form and texture but it is not "red" in the sense that Mareschal Ney, Dauntless, and others are but rather a rosy mulberry. Eng.

RHEA (Wmsn) This reminds me of a darker colored Asia with a suggestion of Isoline. The color is distinct and telling in

the border—apparently a good doer. Eng.

Much larger than the Isoline I grow and with more substance but less color. Very vigorous, a strong multiplier, four feet high. Aus.

RHEINGAUPERLE A delightful little lilac-pink, light and graceful. Countess Senni.

RIALGAR (Sturt) A splendid variety and most telling in

color-should be in every garden. Eng.

SACRAMENTO (Mohr-Mit.) A beautiful plicata but in spite of its novel coloring less good than Los Angeles. Eng.

SANDRA Very big but a rather washed out color this first

year. Countess Senni.

SAN GABRIEL (Dean) Reached a height of nearly six feet with me. Quite a pleasing color and form. Blooms early and lasts a very long time in bloom. Eng.

SAN LUIS REY (Mohr-Mit.) An enlarged Opera on taller

stems but without its intensity. Eng.

SANTA BARBARA (Mohr-Mit.) A beautiful "form." Eng. SEGOVIA (Wmsn) 3½ ft. and is what it is said to be and no more. Aus.

SEMINOLE (Farr) Considered a very good "red." I have seen it doing beautifully elsewhere but it never favored me so I fired it. Eng.

fired it. Eng.

SIR GALAHAD (Shull) Flowered once only for me and attracted quite a lot of notice from visitors. Rot eventually carried it off and I have not recently seen or heard of it. Eng.

SIRIUS (Bunyard) One of the best very dark blues that I have seen, in fact it and Joya are quite the best. Countess Senni.

SONATA (Wmsn) 30 in. and bigger than Vesper Gold, stands up to weather conditions and with its bright tints is quite acceptable. Aus.

STEEPWAY (Scott) Attractive in both England and Australia and with your editor.

STIPPLES (Essig) Aptly named but the form spoils the pic-

ture. Eng.

TALWAR (Wmsn) Velvety texture, medium size, not so red as I expected. It may show its real quality when established. Aus.

TERIAS (Wmsn) Bright color, small, free flowering over a good period. Quite acceptable but, of course, is dull compared to some of the newer ones. Aus.

[85]

THORSTEN was very handsome, a rich blend of purples and tan. Countess Senni.

THRUDWANG is a good flower and comparable to Decennial only in a way. Decennial is better. Mrs. Peckham.

TIMUR (Sturt) A morose looking flower that does not appeal

to me at all. Eng.

TRUE CHARM (Sturt) Still one of the best, if not the best plicata in commerce. Has all the qualities of a satisfactory iris. Eng.

TUSCARORA (Wmsn) Compared with Seminole it is larger, more substance, and generally much improved and taller. Aus.

VESPER GOLD (Wmsn) 3 ft. but must have a proper setting

to be appreciated. Aus.

YELLOW MOON (Sturt) A very pleasing yellow of nice form. Eng.

YELLOW RAIL (Wmsn) Small but color quite original and attractive.

ZAMORA (Wmsn) Duller than Edouard Michel but with more substance and not so attractive a form. The latter grows well with us and I grew a row of each side by side. Aus.

ZADA (Emig) A delightfully clean white. A free bloomer.

Spikes about 30 in.

In assembling these notes the frequent dwarfing of varieties in Australia is notable even when they are not newly imported plants. On going over reports of the Wisley Trials a similar deduction may be drawn but, on the other hand, field cultivation anywhere develops less height than that in a sheltered garden. The Countess Senni rarely reports height from Rome and perhaps she is wise in thinking only of the color effects and masses. On exhibition and along a path height adds great interest but when we look down on our mass it matters little and a tall mass seen across the lawn may lose much of its beauty unless lower masses of color intervene. Height, of necessity allows the development of more buds, more gracefully poised, on more wide-spreading branches, all sought—for qualities in an exhibition stalk but often to be considered as handicaps in the garden clump or mass.

American Iris Society Test Gardens

Who and Where They Are-What They Need

Alabama Polytechnic Institute, Auburn, Ala. Dr. John W. Hyde, Associate Professor of Landscape Gardening. For study and experimental work. Bearded but especially Beardless, desired for study and experimental work.

Brooklyn Botanic Garden, 1000 Washington Ave., Brooklyn, N. Y. Dr. Geo. M. Reed in charge. Test Gardens for Beardless Irises making a special study of Japanese varieties. Pests and diseases studied here. New Japanese, New Siberian, Beardless species, Oncocyclus and Regelia varieties required. Communication in regard to Beardless varieties invited.

Cornell University, Dept. of Floriculture, Ithaca, N. Y. Mr. Alfred M. S. Pridham. General Test Garden making special test for hardiness, synonymy and horticultural studies. Large collection standard varieties. Needs all newer varieties including Bulbous. Dwarf Bearded test being made by Dr. Albert H. Wright. Two plants of each of these may be sent to him that they can be studied in two plots.

Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa. Prof. E. C. Volz. General Test Garden with large collection. All experimental work. Needs only the newest varieties.

Kansas State Agricultural College, Manhattan, Kansas. Prof. R. J. Barnett and Mr. A. T. Howard. General Test Garden for all experimental work both scientific and horticultural. Needs best standard varieties.

Macdonald College, Quebec, Canada. Prof. T. G. Bunting. Test Garden for all experimental work. Collection of standard varieties and species. American originations especially desired. Please let Prof. Bunting know what you can send and he will send you a permit number for entry of the plants into Canada.

Marsh Botanical Garden, Yale University, New Haven, Conn. Dr. Geo. C. Nichols. Dr. Ralph G. Van Name, 168 Prospect St., New Haven, representing A. I. S. Need newest varieties, Beardless, Bearded, Intermediate and Dwarfs.

Michigan State College, East Lansing, Mich. Mr. C. P. Halligan in charge. Needs all new varieties, Bearded and Beardless for test, display and study.

Minnesota, University of. University Farm, St. Paul, Minn. Prof. A. E. Longley and Mr. Louis Sandos. Mr. Robert Schreiner, Route 1, Riverview Sta., St. Paul, Minn., for A. I. S. Newest varieties of Bearded, Beardless needed.

Missouri Botanical Garden, St. Louis, Mo. Mr. P. A. Kohl. General Test Garden desiring all new varieties, Bearded, Beardless or Bulbous and species to complete collection and provide material for various tests and display.

Morton Arboretum, Lisle, DuPage Co., Ill. Mr. C. E. Godshalk in charge. General Test and Display Garden for all kinds of irises. New varieties desired.

New York Botanical Garden, Bronx Park, New York, N. Y. Mr. K. M. Boynton. Test for Bearded varieties. Trial Garden for seedlings. Breeding Garden for species under Dr. A. B. Stout. Dr. J. K. Small, testing and describing new species collected by him. New varieties of Bearded and Beardless needed. Seedlings sent in for trial should be marked "Seedlings for Trial."

Oklahoma, The University of. Norman, Oklahoma. Dr. Paul B. Sears and Mr. Jasper Clark in charge. Needs all standard and new varieties of Bearded, Beardless, Bulbous and species. A good representative collection here for study and display is desired.

Saskatchewan, University of. Saskatoon, Saskatchewan, Canada. Prof. C. F. Patterson. Tests for hardiness. All groups desired. Senders should write first to Prof. Patterson, who will get permit for entry into Canada for specified number of plants.

Texas Agricultural Experiment Station, College Station, Texas. Dr. S. H. Yarnell. General Test Garden for all species, Beardless, Bearded, Dwarf Bearded, Bulbous varieties for tests and display. Oncocyclus and Regelia varieties welcomed here. Plants are best sent here in September, October, November rather than in late July and August.

West Virginia State Agricultural College, Morgantown, W. Va. Dr. H. E. Knowlton, Chief, Dept. Horticulture. General Test Garden for Study and Display. All groups needed.

BULLETINS

Publications available from Science Press Printing Co., Lancaster, Pa. Checks payable to American Iris Society.

No. 1. June, 1920. The Culture of Irises in the United States. 32 pp.

No. 2. January, 1921. Garden Irises, Past and Present. 44 pp. The Development of Tall Bearded Irises in the 19th Century. Sir Michael Foster and his Irises. Registration and notes on hybridization and garden effects. \$1.00.

No. 3. June, 1921. Sir Michael Foster and his Work. 32 pp. Illustrated. Supply limited. \$1.00.

No. 4. January, 1922. Check List. Superseded by No. 8. Stock ex-

hausted.

No. 5. May, 1922. Symposium. 32 pp. Numerical ratings of some 700 varieties. Supply limited. \$1.00.
No. 6. October, 1922. Description of Varieties, Part I. 40 pp. Notes

on European Irises (see also Nos. 7, 9 and 12). 50 cents. No. 7. January, 1923. Descriptions of Varieties, Part II. 40 pp. Articles by A. J. Bliss, W. J. Caparne, and J. M. Shull. 50 cents.

No. 8. October, 1923. Check List, October, 1923. 40 pp. Superseded by 1929 Alphabetical Check List. Out of print.
No. 9. December, 1923. A review of the Irises raised by William Mohr.

Bulbous Irises and their culture. Descriptions, Part III. 50 cents.

No. 10. January, 1924. Irises for the Beginner. 60 pp. Ill. A comprehensive treatment of Irises for the small garden. Supply limited. \$1.00. No. 11. May, 1924. Beardless Irises. 40 pp. Ill. A complete and com-

pact review of the species and varieties of this group of the Iris family. 50

No. 12. October, 1924. Notes and Descriptions, Part IV. 40 pp. Ill.

This brings the list of descriptions up to about five hundred. 50 cents.

No. 13. December, 1924. A Classification of Bearded Irises. 36 pp. The first published color classification of the group and a valuable reference. 50

No. 14. January, 1925. Bertrand H. Farr. 68 pp. Ill. The man and his work with Irises. Official records, 1920-1925, Code of Nomenclature, 1924

Bibliography of Iris Literature. \$1.00.

No. 15. April, 1925. Irises of the Future. 40 pp. Ill. Articles by Sydney B. Mitchell, B. Y. Morrison, Sherman Duffy, and others. Trial garden reports and records. 50 cents.

[88]

No. 16. July, 1925. A Report on Sterility in Irises. 44 pp. Ill. The first scientific study of the subject and the result of research at the New York Botanical Garden. The American Iris Society has been the first popular flower society to initiate and support scientific research. This Bulletin is not recommended to the casual reader. Supply limited. \$1.00. No. 17. October, 1925. Japanese Irises and Others. 44 pp. Ill. Prof.

Miyazawa speaks of his iris work, M. Denis writes of White Irises. 50 cents.

No. 18. January, 1926. 48 pp. Text of Display Garden Agreement. 1925 Bibliography, Introductions and Registrations. Extracts from Les Iris dans les

Jardins, by M. Correvon. 50 cents. No. 19. April, 1926. W. R. Dykes. 40 pp. Ill. A most interesting and permanent record of a life's work with Irises. It includes the most valuable of

his occasional writings. Further technical notes on sterility. 50 cents.

No. 20. July, 1926. The Iris of Gerard's Herbal. 32 pp. Illustrated from the original. Iris combinations for the garden. 1926 exhibitions. 50

No. 21. October, 1926. Planting an Iris Garden. 44 pp. Ill. Further

Studies in Sterility. Supply limited. 50 cents.

No. 22. January, 1927. Exhibition Policy. 60 pp. Ill. 1926 Records.

Further Sterility Studies. 50 cents. No. 23. April, 1927. Memoriam, Arthur H. Scott. 48 pp. Ill. No. 23. April, 1927. Memoriam, Arthur H. Scott. 48 pp. Ill. The value of Iris breeding by S. B. Mitchell. Is scientific research necessary? 1926 Test Garden reports, from the New York Botanical Garden, Brooklyn Botanic Garden, Cornell University, Missouri Botanic Garden. Regelia and Onocyclus Iris. Book reviews. \$1.00.

No. 24. July, 1927. 40 pp. European Iris notes. 1927 exhibitions. Regelia-Cyclus Irises. Book reviews. 50 cents.

No. 25. October, 1927. Early Dwarf Bearded Iris. 40 pp. List of Hybrid Iris of W. I. Caparno. Old Trie names: problems of the Iris broader. 50 cents.

Iris of W. J. Caparne. Old Iris names; problems of the Iris breeder. 50 cents. No. 26. January, 1928. 1927 Reports. 68 pp. Charter and By-Laws. Science Series No. 1, The Iris Borer. Irises in California, England, and Italy.

The Questionnaire—facts of Interest. 50 cents.

No. 27. April, 1928. 64 pp. Garden Reports. Test Gardens. S. S. 2, Breeding. Flowering Periods, Prices, and Gardens. Writings of Sir Michael

Foster. Book Reviews. 50 cents.

No. 28. July, 1928. 64 pp. An Up-to-the-minute rating of hundreds of varieties, thus supplanting No. 5. The Japanese Iris (illustrated). 50 cents.

No. 29. October, 1928. 68 pp. Garden Irises and Garden Plans. S. S. 3, Chromosomes—Root Growth. 1928 Exhibitions. Descriptions, Part V, and Index to all varieties described. Supply limited. \$1.00.

No. 30. January, 1929. 72 pp. 1928 Society Records. Farr Memorial

Library. Symposium comments. Garden Plans No. 3. 50 cents.

No. 31. April, 1929. 60 pp. 1928 Bibliography. S. S. No. 4; Breeding. Symposium votes as an index to popularity. Garden Plans No. 4. 50 cents.

No. 32. July, 1929. 66 pp. Japanese Iris by Geo. M. Reed. Irises for the South. S. S. No. 5; Iris Borer. Verbena Bud Moth. 1928 Notes. 50 cents. No. 33. October, 1929. 56 pp. Notes on Irises and Iris Types by Howard E. Weed, Mrs. John T. Love, Countess Senni, C. P. Connell and Mrs. Massey Holmes, S. S. No. 5, Iris Breeding Reports, Dr. A. B. Stout. 50 cents.

No. 34. January, 1930. The Wild Garden-new native species; 1929

Records. 50 cents.

No. 35. April, 1930. Public Gardens; Bibliography 1929; S. S. 7. 50 cents. No. 36. July, 1930. Travels. From California to England. 50 cents.

No. 37. October, 1930. More Travels—to include France and Italy; Exhibitions. 50 cents.

No. 38. January, 1930. Records 1930; Iris Visits; Garden Pictures 5;

Science Series, No. 8. 50 cents. No. 39. April, 1931. Irises in Canada; Bibliography, 1930; Science

Series 9; Tid-bits, No. 27. 50 cents. No. 40. July, 1931. Japanese Irises—a special report from Dr. Reed; Ill. 50 cents.

No. 41.

October, 1931. Exhibitions. 50 cents. January, 1932. Current reports, awards, Varietal Notes. \$1.00. No. 42.

No. 43.

April, 1932. A. J. Bliss, his work. 50 cents. July, 1932. The Album of Hano-shobu—a translation. 50 cents. No. 44.

October, 1932. Ratings, Exhibitions. \$1.00. No. 45.

20% discount will be allowed on all orders for four or more bulletins.

Alphabetical Iris Check List to members \$3.50, to non-members \$5.00 (price subject to change without notice.)

We can also supply the following Bulletins of the English Iris Society:

No. 1, 2	50 cents	each. No	. 5	50 cents	each.				
No. 3	50 cents	each. No	. 6	50 cents	each.				
No. 7 50 cents each.									
No. 4 is out of print.									

Iris numbers of Addisonia. Published by the New York Botanical Garden, No. 1. \$5.00. December, 1924. No. 2. \$2.00. March, 1927. No. 3. \$2.00. March, 1929.

Membership List—1930-31—Free to Members; \$2.50 to nonmembers.

Lantern Slide Collection

The American Iris Society Lantern Slide collection has been brought entirely up to date and new slides are being added each year.

Members may rent the lantern slides to illustrate lectures on Iris. Rental Fee \$10.

Apply to

Mrs. Katherine H. Leigh Missouri Botanical Garden St. Louis, Missouri.

Announcement of the Farr Memorial Library

Members are reminded that any Garden Club or Horticultural Society has the right to borrow from the American Iris Society the Farr Memorial Library. This library was endowed as a memorial to Mr. Farr and can be had without any charge except actual express charges both ways.

Full details about the library are given in Bulletin No. 30 but briefly it may be stated that all known books on Iris are included as well as all past Bulletins of the American Iris Society and of The English Iris Society.

Applications should be made well in advance as the library has been in great demand and has been used by over forty organizations during the past few years.

Apply to Nearest Office

East: The Horticultural Society of New York, 598 Madison Ave-

nue, New York City.

Midwest: Mrs. Katherine H. Leigh, Missouri Botanical Garden, St.

Louis, Mo.

West: Sydney B. Mitchell, School of Librarianship, Berkeley,

California.

NOVELTIES

You are cordially invited to visit our gardens and see the best of the Novelties, all the good Standard varieties, Dwarfs, and Intermediates. Also, one of the finest collections of Beardless Iris, including many rare and beautiful Species.

NICHOLLS INTRODUCTIONS

Honorable Mention, American Iris Society Crysoro Deepest, purest, finest, yellow Intermediate Red Robe Giant, gloriously velvety, deep rich ruby Valor Taller, darker, much finer Sir Michael

The other Nicholls Introductions are almost as outstanding, and are now generally accepted as fine irises of unusual colors.

April Delivery on Beardless

Place Order Now

Wonderful Louisiana Species, Beardless Hybrids, Siberians, Crested Dwarfs, Spurias Iris Lacustris, \$1.00

The finest of stock-Free from disease-True to name

Rare Species Wanted on Exchange

ROYAL IRIS GARDENS

J. C. Nicholls, Jr.

Camillus, N. Y.

NOW READY—NEW CROP SEEDS -LOUISIANA IRISES

Collected especially for me from large-flowered plants of brilliant colors. Packet, 25 cents; five packets, \$1.00. Add postage, 5 and 10 cents for these quantities.

Frances E. McIlvaine, Glen Isle Farm Downingtown, Penna.

IRIS W. R. Dykes

apply

H. CHADBURN (A. I. S.) Middleton, Saxmundham, England \$4.50 Cash with order

SYDNEY B. MITCHELL'S new book

FROM A SUNSET GARDEN

devotes three chapters to Iris culture and breeding. Autographed copies, \$3.00

> CARL SALBACH 646 Woodmont Ave. BERKELEY. CALIF.

The American **Rose Society**

Invites

Members of the American Iris Society who also enjoy roses to unite with it in improving and furthering the enjoyment of roses throughout the world. The American Rose

The American Rose Annual, sent to each member every year, describes all the new roses and is packed with information and inspiration for rose growers.

The American Rose Quarterly deals with current exhibitions,

meetings, rose pilgrimages, roster

of members, etc.

"What Every Rose Grower
Should Know," the Society's book
of instructions for rose-growing, is sent to each member.

The Committee of Consulting Rosarians will give free advice on all rose subjects.

Dues \$3.50 per year

Three years for \$10.00

Address

Secretary, American Rose Society, West Grove, Pa.

IRISES :: PEONIES

The 1933 price list will include more than 200 varieties seldom offered for sale and many not otherwise available, including the leading American and European novelties.

They are all described and rated for exhibition and garden purposes in

USES III

"Iris Lovers' Guide"

Free to customers—25 cents to others.

It will make and save you money as it puts the new ones where they belong.

Treholme Gardens
Earl Wooddell Sheets,
1831 Lamont St., N. W.,
Washington, D. C.

The Glen Road Iris Gardens

offer many Novelties as well as a critical selection of

Standard Varieties

A list of your wants will receive prompt attention.

GRACE STURTEVANT Wellesley Farms, Mass.

Rare Irises—1200 Varieties FROM THE SMALLEST— TO THE TALLEST

Early, mid-season, late.—Iris for every purpose. Pogocylus, Regelias, Oncocyclus, Siberians, Japanese, Spurias, Evansias or Crested Iris. Write for Catalogue.

ROBERT WAYMAN
Box E, Bayside, Long Island, N. Y.

CONTROL ROOT ROT OF IRIS

Treat soil with Ansul Formaldehyde Dust before planting. Write for instructions and price.

ANSUL CHEMICAL COMPANY
Marinette, Wisconsin

SPECIAL NOTICE

Until the present issue of the New Peony Manual is exhausted the Directors of the American Peony Society have reduced the price to \$3.15, delivered. This is a reduction of 50% from former price and was prompted to meet present conditions and make it possible for every garden lover to obtain a copy, which at present price is below cost of production.

This manual is the greatest book of its kind and will prove of great value to any peony admirer. Membership in the American Peony Society, four splendid bulletins, together with the peony manual for \$6.00.

Act quick if you desire a manual as at this low price we expect to soon dispose of the balance of books on hand. Address all communications and remittances to,

W. F. Christman, Secretary, American Peony Society, Northbrook, Ill.

To You!

Since you are a member of The American Iris Society, it need not be pointed out that you are a rather special sort of gardener, a person with more than average vision and imagination. As such a gardener of course you look for special things in all garden fields. Have you discovered the NATIONAL HORT-ICULTURAL MAGAZINE, published quarterly by The American Horticultural Society?

It is the special garden quarterly in America, written for persons like yourself, not for the dull who need a program, not for the horticulturally blind and lame who need second-hand sight and verbal crutches, but for the intelligent who like to read, who like to study, who prefer a new word or two regularly, who have courage not to follow fashion too blindly, who believe in gardening as much for the delights of mind and spirit as for the cultural blue ribbons of the shows. Try sending three dollars to Mr. D. Victor Lumsden, Secretary, 1629 Columbia Road, Washington, D. C. It will bring you iris notes and much else.

K

INGSLEY'S GARDENS

1933 Catalogue
"GLADIOLUS OF DISTINCTION"
AND CHOICE IRIS
Illustrated in colors.
Yours for the asking
W. H. KINGSLEY,
Tennyson Dist.
Hayward, California

FREE-Sample Copy Flower Grower



A magazine specially edited for gardening enthusiasts. Intensely practical, stimulating, helpful. Unlike any other. Paste this adv. on postal or enclose in envelope with name and address; we'll mail sample copy.

FLOWER GROWER

126 No. Broadway, Albany, N. Y.

SUBSCRIBE FOR THE AMERICAN IRIS SOCIETY BULLETIN

THE IRIS SOCIETY

(of England)

Application for membership in The Iris Society may be sent direct to the American Iris Society office. Make check for dues (\$2.85) payable to American Iris Society; it to SCIENCE Press PRINTING Co., Lime & Green Streets, Lancaster, Pa. it plainly "For dues for The Iris Society (of England)" and print your name and address.

THE AMERICAN HORTICULTURAL SOCIETY

Invites to membership all persons who are seriously interested in horticulture. For its members it publishes, an illustrated quarterly, The National Horticultural Magazine in which will be found a more diverse and interesting collection of horticultural material than in any other American garden publication. It is written by and for its members. Among its regular features are articles on: Conifers, California plants, American natives, iris species, narcissus, succulents, lilies, unusual shrubs and trees, rock plants, ivies, and many more. Particular features for 1933 will include a horticultural review of fuchsias and preliminary reports on tulip species. Membership is three dollars the year. Checks should be made to the Society and sent to Mr. C. C. Thomas, 211 Spruce Street, Takoma Park, Washington, D. C.

The American Delphinium Society

A group of enthusiasts have banded themselves together to work for the betterment of delphinium and to introduce the flower-loving public to the magic spell of the modern delphinium. The Bulletin of the Society, published three times a year and containing contributions by European and American specialists, is sent free to each member. In addition, the officers of the Society are ready and eager to help each member solve his particular problems.

LEON H. LEONIAN, Secretary,

University of West Virginia, Morgantown, W. Va.

Permanent Labels for Your IRIS

Have permanent labels for the plants and flowers in your garden. Enjoy the convenience of a durable label that can always be read at a glance without having to hunt for it or turn it into a readable position.

Our labels consist of a stamped aluminum tag securely fastened to a stiff galvanized wire stake $2\frac{1}{2}$ feet long. Nothing to rust, fade, or wash off. Easily read from a distance of 10 feet.

Ideal for the Iris Bed

Simply send us the names of the iris or other plants for which you desire permanent labels.

Each 20¢

(We pay delivery costs.)

C. S. MILLIKEN
SOUTHERN CALIFORNIA
IRIS GARDENS
970 New York Avenue,
Pasadena, California

WILLIAMSON IRISES

Send your name for our 1933 list of new introductions and standard varieties, to be published before the blooming season.

LONGFIELD IRIS FARM
429 Market Street, Bluffton, Ind.

Well Grown IRISES

Moderately Priced

New List March 1933

Hearthstone Iris Gardens

M. Berry Doub Hagerstown, Maryland

J. MARION SHULL

Artist-Plant Breeder specializing in Iris.

207 Raymond St., Chevy Chase, Md. Introductions include Coppersmith, Elaine, Julia Marlowe, L'Aiglon, Moon Magic (1931), Morning Splendor, Nocturne, Sequoiah, Tropic Seas.

Author of "Rainbow Fragments, A Garden Book of the Iris," 1931.

THE CREAM OF THE CROP—We Have Them

OUR NEW IRIS CATALOG will list the best of the new as well as the good standard varieties. President Pilkington, Golden Flare, Gudrun, Jean Cayeux, Red Dominion, Shirvan, Depute Nomblot and Vert Galant are just a few that will be fully described in our new catalog along with good illustrations both in color and half-tones. If you do not receive it, a copy will be gladly sent on request.

Minnesota Grown

Hardiness Unquestionable

RIVERVIEW GARDENS

909 Winslow Ave.,

A. J. Wilkus & Sons.

St. Paul, Minn.

The 100 Best Iris

Considered in the balance of common sense are listed in

An Iris Lovers' Catalog

The world's most complete interesting and informing treatise on the modern Iris. An Iris book of lasting value.

A copy to every Iris lover for the asking

SCHREINER'S IRIS GARDENS

Box 103, Riverview Sta., St. Paul, Minn.

CUPRO-JABONITE

Prevents
Iris root rot — Delphinium "Blacks"
Prevents

basal rot and fungus diseases. Dust all roots, bulbs, etc. before planting, shipping, and storing.

A boon to Iris Growers.

Safe, economical & efficient—

Application is convenient, consisting of sprinkling (or coating) the affected rhizomes—

1 lb. Sprinkler cans—\$1.00 post paid— Special quantity prices to Nurseries and seed dealers.

If your dealer cannot supply you write—

Gordon Chemical Company, Inc. 1406 W. 9 Kansas City, Mo.

HELP YOUR SOCIETY GROW

Invite your garden friends to become members
Use coupon below

The American Iris Society

CARE OF SCIENCE PRESS PRINTING CO. LANCASTER, PA.

I desire to become	a		member and
enclose the	dues for the current year	(Jan. 1st to D	ec. 31st, 19—)
Name			
Addre	ess		
Date			·····
I enclose also the subulletins:	m of	fo	r the following

CLASSES OF MEMBERSHIP

Active Membership \$ 3.00 Sustaining Membership \$ 10.00 or more \$25.00 or more Life Membership \$ 50.00

Special Three Year Membership, \$8.50

Please make checks payable to The American Iris Society. Send to the Science Press Printing Company, Lancaster, Pa.

Notice of 1933 Annual Meeting

The 1933 annual meeting of the American Iris Society will be held in Freeport, Illinois, on Saturday, June 3, 1933. Full details as to the hour and place of the meeting will be published in the April Bulletin, and if any change of date is necessary on account of an early or a late season members will be notified by mail.

A meeting in Freeport gives the opportunity to attend the Freeport Iris show which is famous all over the country, and to see one of the finest Iris collections in the world, that of Mrs. Douglas Pattison of Quality Gardens. Many members will probably also wish to avail themselves of the opportunity to visit the Sass Brothers near Omaha. There are good train connections and splendid motoring roads through this whole section.

One of the reasons for choosing Illinois for the meeting is the fact that the Century of Progress Exposition is being held in Chicago and will be opened on June 1st. Those who come to the Freeport meeting from any distance will undoubtedly stop in Chicago for this. As our meeting is so near the opening day of the Exposition the members are reminded that Chicago may be crowded and that hotel reservations should be made well in advance.

Freeport is reached from Chicago by Chicago & Northwestern Railroad and by the Illinois Central Railroad.

Official Headquarters HOTEL FREEPORT Freeport, Illinois

COMMITTEE:

Mrs. W. L. Karcher, 1011 West Stephenson St. Mrs. C. A. Sherman, 718 East Pleasant St.

BULLETIN

OF THE

American Iris Society

April, 1933

SOUTHERN EXPERIENCE

No. 47

Editor, R. S. STURTEVANT.

CONTENTS

The Ghost Iris	- 3
Edward Bruce Williamson 1877-1933	4
'Tis Better Left Unsaid, The Editor	4
The South—Where is it?	5
Iris in the Lower South. Columbia, Charleston, and Bennettsville, S. C.:	
Augusta, Ga.; Oneco, Fla.	6
Augusta, Ga.; Oneco, Fla. The Distribution of Iris in Florida, H. Harold Hume	12
Iris in the Piedmont. Greensboro and Winston-Salem, N. C.; Atlanta,	
Cedartown, Rome, Ga.; Birmingham, Ala.	19
Growing Conditions, Mrs. John Lewis Kilgore	
On Tenderness in Iris, Dr. F. M. Hanes	25
Texas, Houston, San Antonio, Dallas	26
In North Texas, Mrs. Gross R. Scruggs	
Oklahoma, Helen C. Roe, Tulsa; Oklahoma City	30
The Family Tree	33
The Family Tree Tennessee, Iris Desert Gold (Kirk.), C. P. Connell, Mrs. J. S. Routon	34
Garden Effects. Mrs. Katherine P. Wright	42
Test and Display Gardens, 1932	45
50-100 Most Popular Varieties. Compiled by Sherman R. Duffy	48
Ratings—1933 Regulations	54
Garden Pictures 6, Displaying 50-100 Varieties. R. S. Sturtevant, M.L.A.	55
Ratings, Scores, etc	57
How Were They Judged, cont.	59
Bibliography, 1932. Compiled by Ethel Anson S. Peckham	64
Varietal Notes	73
Tid-bits 30th. Iris W. R. Dykes; The Lake Iris and its Differentiation from	
the Crested	75
Iris Chromosomes. J. C. Nicholls	79
On Flower Shows; Iris Cold Storage	
The Vocational Guide. Our Officers	85
News and Notices. Exhibitions, Bulletins, and Items	86

Commercial growers are advised that 1932 Ratings are not official and should not be used for publicity.

Published Quarterly by

SCIENCE PRESS PRINTING COMPANY. LIME & GREEN STS., LANCASTER, PA.

Entered as second-class matter March 8, 1927, at the Post Office at Lancaster, Pa., under the Act of March 3, 1879.

OFFICERS 1933

Directors:

Term expiring 1933: Dr. H. H. Everett J. B. Wallace, Jr.
Jacob Sass Richardson Wright

Term expiring 1934: Mrs. W. H. Peckham R. S. Sturtevant A. P. Saunders B. Y. Morrison

Term expiring 1935: Mrs. J. Edgar Hires John C. Wister

F. B. Mead

President—John C. Wister, Wister St. and Clarkson Avenue, Germantown, Philadelphia, Pa.

Vice-President-Dr. H. H. Everett, 1104 Sharp Bldg., Lincoln, Nebr.

Secretary-J. B. Wallace, Jr., 129 Church St., New Haven, Conn.

 ${\it Treasurer} - {\it Richardson Wright, House \& Garden, Graybar Bldg., New York City.} \\ {\it Regional Vice-Presidents} -$

- 1. Mrs. Thomas Nesmith, 166 Fairmount St., Lowell, Mass.
- 2. Col. J. C. Nicholls, 114 Overlook Rd., Ithaca, N. Y.
- 3. M. E. Douglas, Rugby Place, Woodbury, N. J.
- 4. E. W. Sheets, 1831 Lamont St., N. W., Washington, D. C.
- 5. Mrs. James R. Bachman, 2646 Alston Drive, Atlanta, Ga.
- 6. W. A. Payne, Box 685, Terre Haute, Ind.
- 7. C. P. Connell, 2001 Grand Ave., Nashville, Tenn.
- 8. Robert Schreiner, R. 1, Riverview Station, St. Paul, Minn.
- 9. Euclid Snow, R. F. D. 2, Hinsdale, Ill.
- 10. Mrs. Gross R. Scruggs, 3715 Turtle Creek Blvd., Dallas, Texas.
- 11. David C. Petrie, R. F. D. 2, Boise, Idaho.
- 12. Dr. P. A. Loomis, Colorado Springs, Colo.
- 13. R. M. Cooley, Silverton, Oregon.
- 14. Prof. E. O. Essig, University of California, Berkeley, Calif.
- 15. William Miles, Ingersoll, Ontario, Canada.

Chairmen of Committees:

Scientific-Dr. A. E. Waller, 233 So. 17th St., Columbus, Ohio.

Election-Dr. C. Stuart Gager, Brooklyn Botanic Garden, Brooklyn, N. Y.

Membership and Publicity—Dr. H. H. Everett, 1104 Sharp Bldg., Lincoln, Neb.

Registration-C. E. F. Gersdorff, 1825 No. Capitol St., Washington, D. C.

Annual Meeting-Mrs. W. L. Karcher, Freeport, Ill.

Test Garden-Mrs. W. H. Peckham, New Rochelle, N. Y.

Display Garden-Mrs. Brewster B. Hoornbeek, Elgin, Ill.

Exhibition-Mrs. W. L. Karcher.

Bibliography-Mrs. W. H. Peckham.

Awards—Dr. H. H. Everett.

Editor-R. S. Sturtevant, Groton, Mass.

LANTERN SLIDES—Rental Fee (to members) \$10.00. Apply to Mrs. K. H. Leigh, Mo. Botanical Garden, St. Louis, Mo.

REGISTRATION-Closing Dates advanced to August 1st.

THE AMERICAN IRIS SOCIETY

THE GHOST IRIS

Iris albispiritus Small, sp. nov. Addisonia, Vol. 14, No. 1, March, 1929; Plate 450.

The Ghost Iris is a native of Florida where it has a very restricted range and only occurs in small colonies, in a usually dense turf of grass, sedge, and lowland flowers. It was found early in 1927 near the Caloosahatchee River some twelve miles above Fort Myers. Up to this time reports of white irises discovered in this region had been disregarded as it was thought that they were only albino forms of *I. savannarum* which is common in the district. Several colonies, however, of *I. albispiritus* were found growing on both sides of the river by Walter M. Buswell during the spring of 1927 and plants were sent to the New York Botanical Garden for trial. They bloomed that autumn and proved to be quite different from *I. savannarum*, in the long falls with slightly wavy edges, the finely toothed standards and style branches, in fact in the whole character of the flower.

In a way this iris resembles the Louisiana species and it is curious that crosses made with it produce red and pink forms not unlike those obtained from crosses made with albino *I. giganticaerulea* and *I. fulva*. This gives much food for thought.

The name Ghost Iris was selected by Dr. Small because in its native habitat one does not notice the foliage or stems from a distance and the white flowers appear to float in the air like some Will-o-the-wisp or St. John's Fire along the marshy river's brink. It is a pretty thing for the garden though in the north it does not reach the four foot growth that it does in Florida. The bright yellow of the crest sets off the flower and if it is possible to get a good patch in bloom up here it could really be termed a flaunting style of iris. Members living in the Coastal Southern plain may expect a real success with *I. albispiritus*.

ETHEL ANSON S. PECKHAM.

EDWARD BRUCE WILLIAMSON 1877-1933

The passing away of "Bruce" Williamson on Tuesday, February the twenty-eighth, at Ann Arbor, Michigan, brings a sense of personal loss to many. To meet him was to love him. His fame in the diverse fields of irises and dragon flies brought to the small town of Bluffton, Indiana, many a visitor and to each, his or her visit will remain a vivid memory through the years. To his simple friendliness was added the joy of an intense interest in people and things. There were tales of the jungle told in the wee small hours, there were theories discussed at sunrise, and always a mind responsive to new experiences. To such a man death comes as an adventure. May his spirit hearten us upon our ways.

TIS BETTER LEFT UNSAID

The editor has gone into a huddle with members of greater experience as to what is wrong with the Bulletin. He suspects, The Depression, which, in all organizations with which he has been in touch, seems to have had an exhilarating effect. That such exhilaration may prove more destructive than constructive might be a good forecast. Now the huddle was purely one of minds because Mr. Richardson Wright in the interim of telling "the pansy conventionists" where to go presumbly edits House and Garden in New York while Sherman R. Duffy rattles his journalistic keys in Chicago but both agree that what the world wants is "short pieces." (The editor prefers the term "shorts" as more decorative.)

Of course my own preference is for meat—well-seasoned—and I care nothing for mental chop-suey but, like the payers of an income tax, the meat-minded are in very small minority we understand. If these literary (?) hors d'oeuvres are a necessity we shall pattern ourselves upon the Life and Opinions of Tristram Shandy writ in 1759. He who can put two chapters to a page sets a high standard.

With this, our 47th Bulletin, come new departments where squibbs and jottings, abstracts and extracts, even an occasional homily, couplet, pandect or parable may find its niche. Their appeal will depend upon your activity not that of the editor.

The Family Tree is to become our Almanach de Gotha where we list the royal matings and their numerous progeny. Should a layman overhear the back-chat of our breeders perhaps scandals would be a better title. . . . We have never approved of naming plants for people.

The Vocational Guide will, we fear, succumb. The modesty of our members seems to be exceeded only by their eagerness to introduce new varieties. Technocracy should be dragged in somewhere and though we are not quite sure just what it means we suspect that one of the breeders who, like Mr. Williamson runs about with a long-handled broom and a gallon jug of pollen, might be called a technocrat of sorts. Such practises are a serious matter.

THE EDITOR.

THE SOUTH-WHERE IS IT?

"South of the Mason and Dixon line" possesses historical significance but horticulturally uniform conditions do not prevail even within the limits of one state nor does space in one bulletin permit of the inclusion of material from iris-conscious Virginia. Hence your editor has arbitrarily requested information from almost all our members in North Carolina, Tennessee, Oklahoma and states to the southward. Even within this area we find Texas with one group of climatic conditions and the district east of the Mississippi with at least three marked changes of growing conditions due largely to altitude and distance from the sea.

"The Manual of Cultivated Trees and Shrubs" by Alfred Rehder presents a map of climatic zones based on a difference of 5 degrees in the lowest mean temperature of the coldest month. In irises we are more interested in humidity, in the frequency of unseasonable freezes but Mr. Rehder's Zones VII and VIII may be of value. The latter, on its southern boundary swings from about Norfolk, Va. across North Carolina, includes the westerly corner of South Carolina, a narrow north band in Georgia, Alabama, and Mississippi, all but the southern part of Arkansas, and the upper western third of Texas (a much drier area).

The Northern limit of this Zone VIII is approximately at Richmond, Va., Knoxville and Nashville, Tenn., Fort Smith, Ark., and Amarillo, Texas while Zone VII extends northward through Tulsa, Okla., and into Missouri, Kentucky, central Virginia, and swings up along the Coast to include Delaware, southern New Jersey, and the mere edges of Long Island, Nantucket, and Cape Cod (almost).

"Gardening in the Lower South" by H. Harold Hume defines an additional climatic zone beginning at Charleston, S. C., extending southward along the Atlantic Coast and westward around the Gulf of Mexico. This zone has a fairly uniform summer climate. It is a coastal strip with fairly uniform moisture conditions that are almost too much for Bearded and Bulbous irises (with the possible exception of *I. xiphium*). The closely related Moraeas and the native species remain for trial and success.

Back of the coastal plain of the "Lower South" comes the higher

elevation of the Piedmont section and beyond that the Appalachians which give us, even in New England, a wealth of trees and shrubs, hemlock, azaleas, rhododendrons, of ferns and flowers. It is well to remember, however, that not only do local conditions of soil and drainage vary enormously but that certain plants (even within a species) may also vary in their individual reactions. If red-buds, sour gums, and holly are found from Ontario, Connecticut, or Massachusetts south to northern Florida our hopes that certain specific varieties of irises will succeed may be attained.

IRIS IN THE LOWER SOUTH

Miss Gulledge writes from Columbia, S. C. "It is true that I have a fair number of losses from rot due to the amount of moisture during the summer growing season of nine months but they make most satisfactory border plants.

"The early iris begin blooming the last of February in a normally cold year and the different varieties keep up till the last of May though these last blossoms are often ruined by the mid-day heat. In mild winters there are scattered blooms all winter and to-day (Jan. 27, 1933) three are out.

"Daffodils (King Alfred) are lovely with the red-purple kochii; pale pink roses (The Duchess) with Aphrodite; Regal lilies with the late pale blue irises."

From Augusta, Ga., Mrs. Speer writes. "The iris is one of the most satisfactory flowers we have here particularly the Germanicas which grow and increase beautifully with little attention aside from bone meal and sulphur as a top-dressing.

"The Spanish and Dutch varieties give much pleasure though of course they are a little more particular about the spots where they will thrive as they cannot stand this strong summer sun and must be planted in the shade.

"The Japanese are not suited to this climate and though by putting slats over them in May and keeping them constantly watered, they have managed to live, the flowers are not more than half the size of those in my northern garden.

"I. stylosa blooms from mid-December to mid-January and I. verna blooms in lovely little patches in late March on the edge of the woods along the drive. Most of our flowering shrubs have

bloomed but the climbing roses and flowering dogwoods make lovely backgrounds."

Mrs. W. Davis Rogers, Charleston, S. C. "In my garden the white flags flourish as they do everywhere in this locality. (It is uncertain whether this is *I. albicans* or *I. Florentina.*) The blue flag is more susceptible to rot and is less frequently seen and even rarer is the redder purple of kochii. In spite of this I know of no one who has been able to have more than an occasional first year bloom from the named varieties though our garden club distributed several hundred plants in 1928. Of a dozen Lohengrin eleven were lovely the first year, made large clumps of foliage but flowered only occasionally afterwards.

"For the past four years I have planted about two dozen each year and until the use of Cypro-Jabonite stopped the rot have lost most of them regularly. From the 1929 planting I still have good clumps of Susan Bliss, Opera, La Neige, and Mme. Cheri and from California I have Jacinto, J. J. Dean, J. S. Dumas, Leverrier, and San Gabriel and all develop foliage and little bloom if any.

"Of course if our winters are so mild that the plants are never dormant we will not be able to grow them until some one develops a race suited to this climate. I have had no success in pollinating the common flags. (Florentina is usually sterile and albicans and germanica rarely set seed. Ed.)"

From Mr. Reasoner of The Royal Palm Nurseries, Oneco, Fla. "After many experiments we are turning our attention to the new species from Louisiana and have selected strains ranging from almost pure white to pale and dark blue, and deepest royal purple from our native *I. savannarum*."

Readers are referred to Bulletin No. 34, January, 1930 for a review of new Southern species.

From Mrs. McColl, Bennettsville, S. C.

This is certainly not the first of February when you asked for my notes for the Bulletin but it is indeed the season when I feel that I should not write about iris at all. This is the one time of the year when I am utterly despondent about my iris garden—when it really looks as if it will never bloom again—and the knowledge of the annual recurrence of these emotions and the fact that they are always followed by renewed interest and enthusiasm as the Spring comes on does not lessen my discouragement at this stage. Perhaps ten days from now when the new growth of foliage makes its start I shall feel decidedly more cheerful.

The last eighteen months have been very unfavorable for Bearded Iris in this section. We do not have much natural drainage in this coastal plain nor in '32 did we have the usual dry Fall. The mild winter of last year followed by this very warm January and an abundance of moisture all along have not been good for the roots. Bloom was poor last season due partly to the late freeze. Nineteen thirty-one gave us iris of magnificent quality as well as great quantity of bloom. Perhaps that completely spoiled us for even an average blooming season. Certainly the lesson of the past eighteen months is the necessity for elevation of beds and borders and for increased artificial drainage for Bearded Iris and, I believe, for more careful selection of the varieties we should try to grow.

At present I feel inclined to give vigor all of fifty points in judging the value of a variety. I would have them all grow from great big swollen roots that pile madly one upon another or preferably flare in an ever-widening circle as the number of roots increases, making handsome the clump yet never really crowding it. This fashion of growing, as well as some long ago won adaptability to soil and climate, gives us each year our rich display of purple and white in masses of the old time Flags.

Isolated as I am from the chief centers of iris cultivation in our country and dependent entirely on what I read (the Bulletin is a great help here), and on my individual experience in growing rather than on consultation with and advice from others more informed, I feel myself much handicapped in advancing an opinion. It seems to me that what our section needs are hardy vigorous descendants of germanica and either Florentina or albicans stock, and perhaps pallida inheritance would do equally as well. Lent A. Williamson, of Amas parentage, is vigorous with us; Alcazar about the same. My nearest iris enthusiast neighbor has hoped that the California varieties of decided mesopotamica and Ricardi blood would succeed admirably here but I fear it is but a vain hope. They do live and bloom in my garden but I am quite sure that they do not compare in size and quality with the same blooms in the states of their origin. I must make an exception of Esplendido which for me had last year foliage thirty-four inches high and was indeed a splendid group in the garden. Cameliard, Deputé Nomblot, Persia, Blue Velvet, Rhea, my own creamy-pink seedling of Alcazar and Mme. Chéri: these are examples of what I wish all iris could be for vigor and increase in the environment in which I must grow them. Could not the industrious hybridizers list each year their new varieties likely to do well for us?

Siberian varieties and hexagona hybrids flourish with me and the limited number of Spurias I have tried are quite satisfactory. Even in Japan, I. tectorum could hardly multiply more rapidly than it does in the dry spots of my garden and the growing of susiana in the open is at once an adventure and a joy. I. stylosa speciosa angustifolia is lovely and fragrant from the third week of December onward into March. Bloom is checked when the thermometer goes down but a few warm days see it opening again.

That Corrida held its own in the ratings of the October Bul-LETIN was gratifying. Of all my Bearded varieties I like it best for cutting and I'm glad to see White Knight also has its champions. Taj Mahal, Susan Bliss, and Lady Byng are to me very beautiful in both garden and vase and I'm still loval to Cecil Minturn because of its lovely color and prolific bloom. All these are sufficiently strong growers though their rhizomes are not so large. I am quite aware that comments on the worth-whileness of newer varieties for this section would be much more valuable but after all I can grow but a moderate collection of the very new iris and my experience with the ones I do grow is of necessity limited in time. In spite of this inadequacy of garden space and garden pocket-book I must confess that one of the greatest thrills I get each year is from the estimates and descriptions of all the wonderful novelties introduced given in the pages of the Bulletin by more intelligent judges and more experienced iris gardeners than myself.

Owing to our long blooming season the selection of background and accompaniment for Tall Bearded Iris is much restricted. Many flowering shrubs are over by the twentieth of April but *Philadelphus coronarius* and Virginal and *Deutzia* Snowflake and Pride of Rochester are in their prime at iris time. Hemerocallis *flava*, Dr. Regel, and *middendorfii*, and many Hybrid-tea roses are pleasing combinations with iris, and the hardy abounding pink oxalis makes a charming border for the iris beds. It has never to be renewed and is heavier and more effective the longer it is left undisturbed. Columbines too are lovely and lasting particularly the short spurred double varieties and the yellow *A. chrysantha* and native *A. canadensis*. *Anchusa myosotidiftora*, *Lychnis viscaria splendens*, hardy Candytuft, all these help to make the iris garden beautiful and the

gardener's heart glad. Other perennials are tried at intervals but these I have found among the most dependable.

Years ago in my first fresh iris enthusiasm and intoxication I wrote an article in which I said that it was my ambition to grow all the varieties of iris then known. Perhaps that was an ambition possible of realization then but only a moron or a madman would contemplate such an attempt now. My ambition at present is to find the varieties of iris that are beautiful, and satisfying but above all that will do well in my garden and repay a reasonable amount of care with generous bloom. Then let me go adventuring each year among the many new introductions, and I can bear an occasional complete disillusionment and disappointment as equably as I can the sight of a really fine iris measuring up to the full perfection of its originator's hopes and expectations.

The Bulletin is invaluable to all of us who love iris. The open and candid discussion of all matters is a great asset to the society. I should not dare express myself so freely as some do, but that is really what makes the Bulletin worth reading and I do hope no one is so sensitive as to take exception to what after all are entirely personal opinions.

From William Elliott, Columbia, S. C.

The thermal line which passes through Columbia, situated in the center of South Carolina, and the capital of the State, begins about Norfolk, Virginia, runs well inshore from the North Carolina coast, splits South Carolina in two, courses through North Georgia, Alabama and Mississippi, divides Arkansas and Oklahoma and dives into north Texas. So that with soil differences only left to consider we are situated in an iris empire.

In normal years we have iris blooms from March to June. In the abnormal year of 1931-32 we had iris blooms from Christmas '31 to June '32.

My own experience with iris began in 1924 when a "collection" of some twenty varieties was bought, such as Lohengrin, Iris King, Prinzess Viktoria Luise, Rhein Nixe, and Isoline.

The twenty all did well except Sherwin Wright and two other yellows. But the one rhizome of Isoline multiplied so well that by 1930 I had one bed 40 feet long and 4 feet deep that gave a riot of bloom, all tall and fine and vigorous.

In 1927 I planted in October the following: Athene, Fairy, Ingeborg, Afterglow, Seminole, Lent A. Williamson, Prospero, Cecil Minturn, Helge, Ann Page, San Gabriel, Conquistador, Souv. de Mme. Gaudichau, Asia, Avalon, Shekinah, Mme. Cheri, Old Ivory, Magnifica, and Wild Rose.

All did well, but the outstanding ones were Ann Page, Mme. Gaudichau, Asia, Mme. Cheri, Old Ivory and Wild Rose.

Then I brought down from the mountains a few *cristata* which did fairly well when given partial shade and a damp place. I. tectorum, the "Roof Iris" bloomed abundantly and multiplied rapidly, but the white variety bloomed in a miserly way. Neither should be moved or divided before October.

From sandy acid soil under oak trees I found some of the tiny *I. verna*, which was induced to bloom and multiply, until the gardener, despite emphatic warnings, dug them up because I could not persuade him they were not grass.

Also some swamp iris, presumably versicolor are thriving, but require abundant water. Japanese iris have done well for about three years when they seem to fade away. But I am trying to prolong their life by better mulching and richer feeding. English, Spanish, Dutch and Siberian have survived for many years.

I. susiana has never bloomed for me but in a nearby garden it blooms most successfully. Skill to my hand for the future!

Cacique would seem to call my garden "home" the way it thrives. Frieda Mohr won the purple ribbon for the best iris in the 1932 flower show, Conquistador (for me) the '31, and Isoline for two successive years. Susan Bliss gave me the blue ribbon for the best of its class, and Ambassadeur has been runner-up for the purple.

I have been fortunate, perhaps, but I think my good fortune is due to the fact that I choose varieties that do well in California.

In the future iris will be divided or planted in late September or early October. Our July and August sun causes too many losses before they can get established. My casualties have been few in the fall.

THE DISTRIBUTION OF IRIS IN FLORIDA

H. HAROLD HUME

The seven species of iris native in Florida, as classified by John K. Small, fall naturally into four groups represented by (1) Iris hexagona Walt., (2) I. savannarum Small, I. rivularis Small, I. albispiritus Small, I. Kimballiae Small, (3) I. virginica L. and (4) I. tripetala Walt. Of these the four constituting the second group are not known to occur outside the state, excepting I. rivularis, reported from Georgia close to the Florida boundary, while those representing the other three groups are found far outside Florida. Within the state the native species are widely distributed. I. savannarum is the most abundant and in some sections occurs in great colonies while I. hexagona and I. virginica are found in fair sized colonies in a few localities. The remaining four species are quite limited both in numbers and in distribution.

All are moisture and humus loving plants but, although water is essential to their distribution and the establishment of young plants, yet it is not always present in surplus throughout the year. Often iris plants are in shallow standing water continuously for weeks or months, but at other seasons there is no standing water where they grow. Water in optimum or in large amounts is most beneficial during their growing season. It is an interesting fact that all of them adapt themselves to ordinary garden conditions and can be grown successfully if particular attention is given to watering, indicating that the abundance of water so often present where they grow naturally, although not inimical to, is actually not necessary for the welfare of established plants.

Presumably either the irises now growing in Florida came from regions farther north or their progenitors did. Some, as *I. hexagona*, *I. virginica* and *I. tripetala*, still have their northern connections. Since their seeds are commonly water borne, they came in on the flood waters of long ago, moving from north to south, even as they may be brought in still from time to time on the floods of the rivers that originate to the northward and flow through western Florida. Under natural conditions they grow in locations where moisture below the ground surface, and at times above, is suited to their needs. Since they require ample supplies of water



[13]

at certain seasons of the year for their well being, conditions best suited to their growth are found in the coastal plains areas, along streams and rivers, more particularly the St. Marys and St. Johns, and in the southern and western parts of the state where the land falls away south and west from the interior highlands. Seventy-five feet or thereabouts is the maximum elevation and by far the greatest numbers of plants are found at elevations only a few feet above sea-level. Among the highest points at which colonies of iris grow are the ones east of Chipley (*I. virginica*), south of Leesburg and north of Newnans Lake (*I. savannarum*).

The absence of irises from certain areas may be accounted for in part on the basis of soil reactions. They will flourish on soils that are quite acid, but it is equally true that apparently they also grow well on soils that are neutral or even alkaline in their reaction. Still it is undoubtedly a fact that soils may be so alkaline as to interfere with or check their growth. This may explain why they do not occur on the lower east coast of the state, for there none apparently are to be found much south of the Fort Pierce-Okechobee line, even though soils unquestionably adapted to their growth are to be found much farther south. Hence, while soil reaction may be to some extent a controlling factor in their distribution and may account for the presence or absence of plants in given areas, it is apparently not the only one and it is entirely possible that what took place affecting their distribution during geologic ages accounts for their absence from certain localities. Naturally, one would think that the Everglades would be adapted to their growth, yet none are found native in the Everglades proper. It may be that the general trend of drainage waters did not distribute them in that Certain mineral elements necessary for their growth may be absent from Everglade soils, and again they may have been crowded out by the rank growth of other plants. Irises native in Louisiana and those from other parts of Florida however are being grown successfully under cultivation when provided with mineral supplements.

Iris albispiritus. The northern limit of this form appears to be on the old Lakeland-Auburndale road at telephone pole 276, about four miles east of Lakeland. It is associated with willow and cypress on the north side of the road. The type locality is near LaBelle. It is found in the LaBelle-Fort Myers area, on the west side of Lake Okeechobee and west of Wauchula. Over this

general area it is widely scattered, but not abundant in any one place. Usually it is mixed with *I. savannarum* and perhaps sometimes difficult to distinguish from the albino form of that species. White irises probably belonging here have been found at Red Level, but whether they are Albispiritus or only an albino of *I. savannarum* is not known. Further study and exploration is needed for this species.

Iris hexagona is confined to the northern portion of the state and apparently is not present south of a line drawn from Jacksonville to the mouth of the Suwannee. There is a small colony in Callahan, another small one a few miles west of Jacksonville near Hart Haven on State Road No. 1, and a larger one south of Maxville on State Road No. 13. It is probable that there are others in this Hart Haven-Maxville area. On the west side of the upper part of the peninsula, it is to be found in limited numbers at Cross City from whence it extends northward into LaFayette County and westward toward Perry and St. Marks. It is in this general area that it is to be found in greatest abundance and in some localities there are large colonies. Compared with I. virginica and I. savannarum its range is quite limited.

Iris Kimballiae. Although reported by Small¹ as occurring on both sides of the upper peninsula, this species has been seen only at Appalachicola. As compared with I. savannarum, to which it is doubtless related, it is a less robust plant with smaller flowers and erect rapier-like leaves. North of the town the Sheip Lumber Manufacturing Plant is located. Near it a little creek or stream comes in from the west to join the Appalachicola River on which the plant is situated. This stream is crossed by a bridge for the railroad. Right at the south end of the bridge on the east side there is a small colony of I. Kimballiae. It is associated with I. virginica, willows, sawgrass, lizard's tail and buttonbush. Across the bridge (on the north side) it occurs among sawgrass on the west side of the track. On the east side a short path leads from the railroad to a boat cache inside a fenced area. Just after crossing the fence, close to the edge of the stream, I. Kimballiae grows in St. Augustine grass and it is also found nearer the boats. Farther out away from the bridge there is a small patch on the east side of the railroad track. In the lumber yard there are a few clumps between the westernmost lumber piles and the wooded

¹ Addisonia. 9: 59-60. pl. 318. D: 1924.

area that separates them from the railroad. Farther south, too, where there is a lot of *I. virginica* there are one or two clumps. The tallest flower stem measured forty inches. Here and there plants were in bloom when the location was visited (March 11, 1932). Had it not been for the frost of the previous night (March 10), which injured many flowers there would have been quite a showing.

Iris rivularis has been reported only from the general type locality in northeastern Florida and the writer has not been able to collect it although three attempts have been made. Small,² who described and named it as a new species, states that it occurs along streams flowing into the St. Marys River, but whether it occurs elsewhere than in the watershed of that river as it approaches its outlet is not known. There is every reason to believe it is quite local in distribution, but until additional collections are made its area cannot be delimited.

Iris savannarum. There are more plants of I. savannarum in Florida than of all other irises counted together. It also occurs more or less abundantly over a greater area in the state than any other species. It is found from the St. Johns River, where it turns eastward to the sea, south to Fort Pierce and Okeechobee on the eastern side of the state, and on the western side from the southern watershed of the Suwannee to the Big Cypress southeast of Fort Myers. Its distribution throughout these areas is, of course, not continuous. In the central portion of the state the northernmost point at which it has been found is almost north of Newnans Lake on the short road from Gainesville to Orange Heights. a line that may be drawn from the Suwannee to the St. Johns through the point just mentioned, I. savannarum is to be found here and there in comparatively small colonies in many different places. In the northern section it is not abundant, though there are fairly large colonies in the vicinity of Otter Creek, but the great area in which I. savannarum occurs in countless numbers extends around the north side of Lake Okeechobee, southward around the west side and southwestward to LaBelle and Fort Myers. that vast area, which extends from Wauchula westward to Bradenton and southward, it is to be found growing in colonies of many, many acres, while in the Okeechobee prairie section it is so abundant that one may look out across patches of I. savannarum

² Addisonia. 12: 11-12. pl. 390. Mar. 1927.

of such size that their farthest sides can scarcely be seen. When in bloom these colonies are a wonderful sight. There are goodly sized areas on State Roads Numbers 22 and 24 where they approach the immediate vicinity of the St. Johns River. Definite locations at which it has been collected are almost too numerous to list.

Iris tripetala. Apparently, I. tripetala is found in Florida only west of the Appalachicola River in the flatwoods in proximity to the Gulf of Mexico. Here, too, a lovely white form is occasionally found. The exact area for this species has not been determined, but it has been collected north of Appalachicola, west of Wewahitchka and north of St. Andrews Bay. A careful survey of the area west of the latter point will probably result in extending its known area of distribution. It is a month to six weeks later in flowering than I. Kimballiae. Its usual blooming season begins about April 15th.

Iris virginica is peculiarly an iris of the watersheds of the St. Marys and St. Johns Rivers. It is found here and there along the banks of both. Usually it occurs in rather small colonies and nowhere does it cover great areas. The places where it is found in greatest numbers are along the Seaboard Air Line and the Atlantic Coast Line railroads north and northeastward from Callahan and along the Florida East Coast railroad from Bayard toward St. Augustine and west of St. Augustine toward the St. Johns River. It is not known to occur in peninsular Florida along the Gulf of Mexico, and it has not been found in the central portion of the state. It is present in a few places in western Florida, more particularly at the estuaries of several rivers that, having their origin outside the state in areas to the northward, flow through Florida into the Gulf of Mexico. For the most part it is not found along State Road No. 1 in western Florida, only one small colony having been noted east of Chipley. It grows on the Ochlockonee River where the road from East Port (State Road No. 10) crosses it. The southernmost location as reported by Small³ is in the Big Cypress, southeast of Fort Myers. As this is an isolated patch. having no connection with any other to the northward, its presence there may be due to seeds carried by water-fowl or other birds. Localities for the species checked by the writer are: Black Creek. Green Cove Springs, Dun's Creek and Rice Creek at the St. Johns River, Ortega, Jacksonville (Willow Branch), Orange Park,

³ Journal of the New York Botanical Garden, 32: p. 62. 1931.

Bayard, West Tocoi, Hastings, Palatka, Kingsland, Chipley, south of Glen St. Mary on the south prong of the St. Marys, Appalachicola, Ochlockonee River (near mouth). It has also been reported from Lake City.

Iris colonies. In so many instances the iris species of Florida grow in unmixed pure groups that the occurrence of more than one species in a group or colony or even in close proximity is always interesting. Combinations, however are found at times. I. virginica and I. Kimballiae are to be found both together and in close proximity at Appalachicola. In one large colony of I. virginica near the Sheip Lumber Manufacturing Plant a single clump of I. Kimballiae has been noted. In the railroad ditch the two were close together and near the lumber piles (between them and the railroad) they also occupy the same area. In this latter case I. virginica was numerous with only a few clumps of I. Kimballiae visible here and there.

At the edge of Green Cove Springs on the road from Shands Bridge, the ground is low and the ditches filled with a growth of such plants as crinum, sedges, lizard's tail, peltandra and iris. Here both *I. virginica* and *I. savannarum* occur in close proximity. In some cases the plants are intermixed.

At the north end of the bridge across Doctor's Inlet, *I. virginica* and *I. savannarum* grow together; the colonies are so mixed that care has to be taken in securing plants of the two species separately. On the road from Jacksonville to St. Augustine there occurs an interesting division of locations of species. About twenty-five miles from the ferry in South Jacksonville the highway crosses a ridge of higher land. It is about two miles wide and on either side of it the land is low. North of this ridge in the railroad ditches, *I. virginica* alone is found. South of the ridge it is replaced by *I. savannarum*. On State Road No. 48 (St. Augustine to Shands Bridge) about three miles west of St. Augustine, *I. virginica* and *I. savannarum* grow in the same general area. There is quite a large patch of the latter growing with willows at the beginning of the low lands.

At the east end of Shands Bridge on the north side in the flood area of the St. Johns there is a single little group of *Iris savan-narum*. At the west end of the bridge *Iris virginica* only is found (on both sides of the road). The little group on the south side produces dark colored, delightfully sweet-scented flowers. These scented blooms are rare, according to the writer's observations.

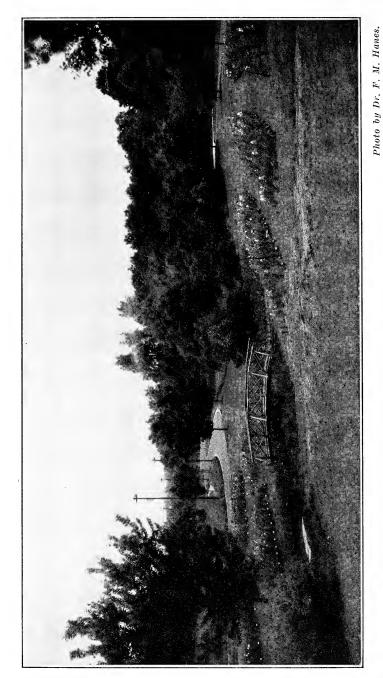
I. albispiritus is usually associated with or adjacent to I. savannarum wherever found in the great iris areas of South Florida from Lake Okeechobee to LaBelle and from Wauchula to Bradenton. Since there is an albino form of the latter, I. albispiritus is not easy to differentiate.

IRIS IN THE PIEDMONT

Whereas the Coastal Plain varies in width from 100 miles in North Carolina to 150 or more in the Gulf States, the Piedmont foot-hills form a varying band from the Blue Ridge of Virginia through the Carolinas, Georgia, Alabama until it is lost in the broader sweeps of Tennessee. The vegetation is largely that of Zone VIII and we find the tall bearded varieties blooming with Oriental poppies, with day-lilies or Bridal Wreath BUT though I may plan the same combinations in Massachusetts reports prove that the selection of iris varieties should differ.

Available reports come from the Birmingham district, from Atlanta, and from North Carolina and a list of varieties compiled by Mr. Earle and Mr. Cahoun of Birmingham and Mr. Graham of Rome, Ga., seems an excellent beginning. The editor wishes that some member might find wherein blood tells a helpful story in this record.

xxx Excellent	xx Very Good	x Good
Aprodite	Afterglow	
Arlington	Asia	Cluny
Ballerine	Bandelero	Delicatissima
Cardinal	B. Y. Morrison	Lent A. Williamson
Coppersmith	Conquistador	Peau Rouge
Damozel	Corrida	9
Dolly Madison	Crusader	
Frieda Mohr	Cinderella	
Gaviota	E. H. Jenkins	
Imperator	Esplendido	
Karen	Gold Imperial	
Magnifica	Iris King	
Mary Gibson	Juniata	
Mme. Cecile Bouscant	Lady Byng	
Mme. Durrand	Lord of June	
Mrs. Valerie West	Mlle. Susanne Autissier	
Princess Beatrice	Mrs. Hetty Matson	
Robt. W. Wallace	Queen Caterina	
Souv. de Loetitia Michaud	Sweet Lavender	
Souv. de Mme. Gaudichau		
Susan Bliss		
Surprise		
True Charm		



Mrs. D. E. Compton, Greensboro, N. C., writes, "There is no thrill quite equal to seeing the new irises in all their beauty and stateliness and they so quickly show appreciation of any extra care. I grow mine in rows, including my favorite seedlings, rather than for garden effect but Dalmatica is lovely with Tulip Clara Butt and Florentina with an early yellow tulip,—a purple pumila is in bloom to-day (Jan. 31)."

Duke University, Durham, N. C., plans an extensive display garden, the bearded irises on the slopes leading down to ponds and a marsh for Southern species and Japanese varieties. Dr. F. M. Hanes is particularly active in the proposal and Mr. Wister has already visited the site.

From Mrs. Arnold Hepp, Atlanta, Ga., "The season is long—in 1932 the germanicas started Mar. 2, (stopped for a cold snap until April 3) but were followed by other varieties into early June with Alcazar the last of all. With a temperature of 84 in late Feburary followed by a drop to 18 a 50% bloom was not surprising.

"Some native collected species are doing well along a drainage ditch in the usual heavy red clay soil. My favorite combination is a planting of native laurel, all across the rear of our white shingled house, in front of and beneath which is a wide border of the little fragrant native *I. cristata* edged with clear yellow violas and all blooming for three weeks on from April 10th. This, in a wood's earth to which plenty of peat moss was added, is so good for the Crested iris (if not disturbed by cultivation) that I often gather flowers from September 1 to December 15."

From Mrs. Barber, Cedartown, Ga., "Twelve years ago blue and white Flags were the only varieties known but now we have some wonderful iris gardens. The climate and soil seem ideal; rot is almost unknown and I have never seen a borer.

"Often in January the white Flag may be found in bloom and in February pumila atroviolacea is a surety. In March comes I. verna followed within a week or two by I. cristata. From then on through June is one continual season of bloom with the Bearded, the species, spurias, bulbous and lastly the Japanese. In July and August there is I. dichotoma (September is too dry) and in October the autumn flowering varieties begin and continue into November while I often gather I. stylosa for Christmas day. It is lovely arranged with the sprays of yellow jasmine.

"The Roof Iris bordering a mass of lemon lilies is truly something to live for and it is hard to imagine a lovelier combination

than the orange hemerocallis Dr. Regel with dark purple Siberians. Iris kochii with Azalea hinodigiri is exceedingly striking.''

Mr. Graham with a big collection at Rome, Ga., considers that methods of growing rather than selection of varieties will solve their problem. He also reports that Arlington would almost rate the highest of all in his section because of its remarkable duration of bloom.

Mrs. John K. Brickman, of Atlanta, reports a wonderful experience with a single stalk of Mother of Pearl which won firsts in three successive weeks at three shows. It started with four buds and eight blooms the first week and almost two weeks later was still a winner with eight open flowers. I wonder if anyone can surpass this report.

Mr. W. F. Cahoon, of Birmingham, has now added an interest in irises to his enthusiasm for peonies.

"It is not every iris that is listed that will do well and come up to its rating, especially those that thrive and reach their perfection in the West and mid-West,—not all but many do less well than those from the North, East, or Europe.

"Our first difficulty in the Piedmont is securing rhizomes early enough to get established before our usual summer drought. I transplant immediately after flowering regardless of weather. If it is dry the plants are well watered, if wet and humid I coat bruised rhizomes with triple strength Semesan but I still plant. Setting a month later even, retards the growth.

"Seed matures early and I plant when they have dried out so that the seedlings are two to three inches high by cold weather. Occasionally one blooms the following year. Of course the majority germinate the following spring after late summer planting.

"Some varieties are slow to adapt themselves, for example Susan Bliss just "moped" around for three years and then changed her mind, came out in all her grandeur, and has been showing off ever since. Some others have done likewise and some are like the old negro's neighbors who had been long in the neighborhood "Deys just' nachly no good whar dey is no how, and auter be sent bak whar dey cum from."

"As an example of good and bad: Candlelight was highly rated but is worthless in this section while Arlington rated at 75 now starts blooming soon after the intermediates and continues with Ochracea among the latest. It is tall, stately, vigorous and a rapid multiplier and while the bloom is rather loose and the color not perfect. Therefore an iris rated by judges in different sections would be my pick even at a lower rating. I prefer one rating by a judge who has seen a variety in four places to four ratings from one planting.

"For late winter and early spring foliage the following irises in the order listed are the most advanced and show up better than any others with which I am familiar: Surprise, Frieda Mohr, Susanne Autissier, Gloriae, Souv. de Loetitia Michaud, Corrida, Esplendido, Leverrier, Mme. Durrand, Coppersmith and Crusader. These are outstanding and I group them with some of any seedlings. Gloriae alone is fickle.

"I have collected many species all over the South and none compare with those from Louisiana. Give them a place that is wet or under water and they are certainly worthwhile and, besides, they are 100% American."

GROWING CONDITIONS-Mrs. JOHN LEWIS KILGORE

Every one knows that differences in climate, altitude, and soil in the various sections of this country demand different types of architecture, ways of cooking, choice of foods, and gardening methods, yet, as iris growers of the South, we have been trying for many years to grow our irises by the cultural methods of our Northern neighbors—and wondering why we were less successful than they.

Here near Atlanta instead of a short summer we have a long hot dry summer season (occasionally it is merely dry, more often very dry, and sometimes a drought for months) followed by a long delightful fall, a short, mild and very rainy winter and an early spring. There has never been longer than four consecutive weeks without something blooming in my garden—roses until Christmas, then violets, jasmine, narcissi, before the iris season (late March through May).

It is obvious that fall and early spring are our best growing seasons. If we make the mistake of planting our irises immediately after blooming "like a duck on the water" and in the face of a dry spell they are started under a handicap and spend the summer trying to start new root growth, sitting like a very dry duck on very dry sandy loam singing wistfully "How dry I am." Fall planting "like an entirely (or at least partially) submerged duck" with roots spread wide and deep, well-firmed into the increasingly moist-

ened soil, starts growth at once and it continues, almost without interruption, throughout the winter and bloom follows in the spring. Last spring a young Coppersmith from "Over the Garden Wall," in seven months, sent up a strong stalk with seven gorgeous blooms and made an increase of twelve.

The greatest difficulty we have in the South is choice of varieties. Mr. Wister speaks in his fine book "The Iris" of the condition of "mental indigestion" which attacks the amateur on reading the catalog of a specialist. But we must add to that the mental anguish of one trying to select irises that will make good in Southern gardens—our only guides these catalogs and the recent ratings from we know not whence though we are quite sure that few, if any, were from our section of the South. (The list of judges does include at least a few from this district.—Ed.)

We, in Atlanta, have begun work on an Iris list and a garden at La Grange will give results from southern Georgia. We owe much to the interest of Mrs. Bachman.

My garden is about one hundred feet higher in altitude than Atlanta and the blooming season is a week or ten days later. I am testing several hundred varieties both in full sun and partial shade and am noting results. Aphrodite in full sun is much more floriferous but inclined to rot but the color is better in shade. Kashmir White, here, is one of the finest low priced whites, hardy, tall, fine textured, floriferous, and good increase. Isolene and Ramona are proving very satisfactory.

Spurias grow and thrive as do the Spanish and Dutch and many hybrids such as Dorothea K. Williamson.

Sequence of bloom is a necessity in my small yard. Very early in the spring we open the season with yellow: yellow Jonquils, January jasmine, forsythia—it is like a flood of sunshine for about two weeks. Then gradually the change to white takes place: white narcissus, Florentina (usually), Bridal Wreaths and Spirea Vanhoutte in snowy drifts-a few Japanese plums with borders of purple violets and a glimpse or two of Flowering Almond. Next comes the iris season, pastel shades and Persian colorings, mingled with Oriental poppies and columbines and coming to a close with the opulence of Japanese irises and the satin beauty and heavy fragrance of magnolias. Later there is a time when Paul's Scarlet rose dominates with side touches of red annuals and later still the yard shows autumn shades, red and yellow barberry, yellow chrysanthemums. Then back to the winter, all green, hedges, vines, and evergreens. [24]

ON TENDERNESS IN IRIS-DR. F. M. HANES

Nature, who as every physician knows, is the most cruel and insensate vivisectionist, performed one of her characteristically dumb experiments in my garden this year of 1932. The winter months were almost devoid of cold weather, and the trusting iris sent out their leaves and bloom stalks in great profusion. By the fifth of March my garden was fully three weeks in advance of the usual blooming season. Then came the treacherous frost. March the sixth a blizzard came out of the northwest and for ten nights the ground was frozen stiff. The result was pitiful beyond description. Beds of iris which ten days before sent a thrill of eager anticipation through one's breast, were now scenes of utter desolation,—Purissima, Mme. Cecile Bouscant, Micheline Charraire, San Francisco—all so recently pregnant with promise of fine bloom -now masses of brownish vegetation. One could only gaze upon the devastation in moody silence. The situation demanded a perfection and refinement of profanity which I did not possess.

So, my fellow amateurs, there are tender iris, in spite of the silence which most catalogs maintain upon the subject. Not all catalogs; but even the others are inclined to treat the matter in the light-hearted manner of asterisks and foot-notes. Would it not in the end be better for all concerned if each catalog segregated into a group the known tender and semi-tender varieties? Purissima, San Francisco and Candlelight, "the highest rated iris in the symposium," for example, all bloom very badly indeed unless given practically cold-frame protection. The tender group contains some of our most gorgeous things, but they are done a grave injustice by dealers who refuse to sound an urgent warning to the buyer of small experience.

My own sad plight was not, however, the result of ignorance, but of stubbornness. The weather-man gave me ample warning, but I coldly resolved to watch the experiment through. For what it is worth, then, I write down the result of my observations. Practically all the iris in my garden suffered in the height of bloom-stalk, number of flowers, and frequently, color of bloom. But the following varieties showed marked tenderness in the order of their narration: Purissima, San Francisco, El Capitan, Santa Barbara, Can-

dlelight, Mme. Cecile Bouscant, Micheline Charraire, Kashmir White, Gloriae, Souv. de Loetitia Michaud, Los Angeles, Theseus, W. R. Dykes, Surprise. All beautiful, indispensable things, but they now repose in one long bed which will henceforth get cold-frame protection. One question, before we close this rehash of old knowledge: What effect should tenderness have on the rating of an iris? Certainly the "highest rated iris in the symposium" should favor us with an occasional bloom without the care of a trained-nurse and a hot-water bottle!

TEXAS

HOUSTON clearly lies in the Coastal Plain and one would expect that the irises here would prove as disappointing as in Florida or Charleston, S. C., but the report of Mrs. R. M. Davis proves quite the contrary.

"In 1930 and 1931 summer planting (deep) was carried on in June, July, and August with perfect success whereas shallow planting in 1932 was a complete failure. September to March is good with either deep or shallow planting.

"Irises with Dominion blood do extremely well while yellows are bad; Shekinah passes out; Sherwin Wright produces small blooms and three year, pencil sized rhizomes still flower; Feldspar flowered twice and died without apparent reason; Houstonian has good increase and a long season, and Mandelay, Day Dream, Ballerine, Queen Caterina, Moa, Bruno, Magnifica, Amber, Glow, Souv. de Mme. Gaudichau, Mlle. Schwartz, Montserrat, and Fanny Gray among others are fine.

"The following have proved repeaters with me; Archeveque intermittently from November to May; Lent A. Williamson the same; Syphax, November, January, April; Black Midget, January and April. This year The Bride bloomed in January."

SAN ANTONIO is further inland and some two hundred odd miles to the westward. Hence apparently a very different range of conditions. George M. Allen reports.

"Arborvitaes intensify the iris green and Crepe myrtles with their pink, purple, or crimson blooms, nandinas and vitex,—all have their place. The blue of the last I use with the yellow irises and I sow the annual Queen Anne's Lace with the blues and Shirley poppies with an occasional dark larkspur with the whites.

"An iris calendar would start with January; Germanica, January 7 to June 14; albicans and pallida, February 1 to April 2; Amas, February 21 to April 3; pumila, February 2 to May 4 and Ricardi to April 11; susiana, February 27 to March 10; kashmiriana, March 2 to April 7; mesopotamica, March 7 to 19; stolonifera, March 7–13; English, March 11, and the Spanish and tingitana, March 23-April 10; filifolia, March 29 to April 21; fulva, March 25 to April 9; kaempferi, Monnieri, ochroleuca, and pseudacorus and siberica (the two last later) all in April; trojana, orientalis, kochii, running into May; and cypriana, May 9 to 18 almost the last.

"Fall Blooming Varieties: Autumn King, November 20 to January 2 and April 5 to May 7; Autumn Queen, October 30 to May 2; Her Majesty, every month including January 20, 1933; Ultra, November 20 to January 20; Mrs. R. C. Boutellier (my seedling) bloomed January 7 to June 14 and I am crossing for all-year around flowering.

"January 22, 1933, finds the tall bearded flowering before the dwarfs and intermediates as usual. Majestic, Baldwin, San Francisco, Duke of Bedford, Tropic Seas, Yolande, etc., all in bloom or heavy bud.

"The climate of San Antonio is very mild in winter with but two or three short periods of frost and I am noting varieties with strong and green winter foliage. Crosses of Ricardi, mesopotamica, Amas, albicans, pallida (not Dalmatica), Purple King (blooms from November to November and must be a distinct species, collected by Wallich about 1830 at the base of Mt. Everest), are practically evergreen. I believe that for an iris to flower in the fall it must preserve its leaves that it may continue to draw sustenance.

"Mealy bug in the winter is particularly to be watched for here and growers should spray with sulphate of arsenate. I find also that the recommendation for cotton root rot (1 lb. blue stone to 10 gal. water) is also a cure for iris root rot."

DALLAS, where Mrs. Gross R. Scruggs represents the Society as a Regional Vice-President, again offers marked differences in growing conditions.

IRIS IN NORTH TEXAS

Mrs. Gross R. Scruggs

The Tall Bearded Iris is preeminently one of the most successfully grown plants in this section of the country. The lime impregnated soil, the long summer's heat, and the rolling ground that insures good drainage furnish all its chief requirements. The long growing season is perhaps too kind, for the rate of increase often becomes a problem.

The strong yellow sunlight seems to develop a texture and strength to the blossoms while the colors are intense and brilliant, the grey-blues being especially beautiful, As an example the old iris Blue Jay is clear and exquisite as a gem, while plants sent to a friend in Massachusetts produced flowers totally uninteresting. The beauty of the coloring of Isoline is outstanding and always commands attention, yet I did not recognize it in Tennessee.

Iris stems here rarely reach the height accorded them in catalogues, doubtless due to the rapid development of the blossoms.

The early-flowering dwarfs are among our first spring blossoms, in fact if the winter is an especially mild one, there are occasional blossoms all during the season, for they seem to withstand the quick freezes better than the intermediates that we have known.

Two of the most outstanding Iris for this section are kochii and Alcazar, judging from abundance of increase, durability of root system through all conditions, resistance to variable weather, and beauty and strength of flower and stem.

Kochii blooms first with the early spring shrubs, and makes a lovely combination bordering Forsythia. Its deep yet brilliant colors, often rivaling Louis Bel if in partial shade, are an ever new delight. Its habit of blooming a second time in late May, at the end of the Iris season, adds to its value; while its low, almost evergreen foliage renders it a good, all year border plant.

Iris is universally used here as a border plant, even outlining formal Rose Gardens, for the upstanding leaves supply the needed green so often lacking among the Roses, and their roots do not seem to injure each other. As a border plant one can easily divide and control the size of the clumps. Alcazar blooms several weeks later than kochii and is the most reliable of its type. Many newer ones

bid for favor, but have yet to prove as worthy. Judging by the same standards pallida dalmatica or Princess Beatrice, and Queen Catarina have only been nearly equalled by two unnamed seedlings of Williamson's,—One of these blooms a bit later and is a little darker shade, and has the tallest stem of any Iris in my garden.

Santa Barbara and the delightful pink Frieda Mohr have shorter stems and appear heavy and stolid, lacking grace of carriage. But perhaps we will have to create new standards of merit to enjoy the hosts of newer varieties that must be enjoyed for their individual massive beauty rather than as a splash of airy exquisite color.

The pageant of Iris has become a dependable event to carry on the succession of bloom in the garden, treading on the heels of the burst of bloom of the bush Roses, and supplying a brilliant carpet of color for the Climbing Roses high above their heads.

The bulbous Iris,—Spanish and Dutch, are proving their hardiness and adaptability to this location, although their rate of increase is very slow. Blooming as they do with the late Tall Bearded they do not prolong the blooming season. They are especially pleasing scattered through beds bordered by the bearded Iris, carrying the colors and softening the whole with their dainty foliage. I know nothing of the English Iris for I have not experimented with them. Few have had more than a season's success with the Japanese, but they may prove of value in the eastern part of the State where the native Iris are to be found.

No rule seems to apply to a class of Iris that will survive here but rather a record will have to be kept of each variety. *Tectorum* thrives beautifully while the other Crested Iris have not succeeded. Many of the Siberian group are satisfactory, others are not. It is a question of those that are adaptable to the lime soil, and that can survive the extremes of sudden freeze, and warm days that force growth, only to be frozen again before the real spring-time comes.

Few of the Oncocyclus group will survive this weather condition, so that they will have to have the same treatment required in the North.

Our native Southern Iris can be grown by preparing the soil, and giving them the other growing conditions they require.

Texas is justly proud of the creative work that has been accomplished by Mrs. W. H. Benners of Dallas, whose introductions ANN DOUGLAS, GOLDEN GLEAM, and LONE STAR received such complimentary ratings from the Iris Society Judges.

IRISES IN OKLAHOMA

HELEN C. ROE, Tulsa, Okla.

When one considers that only a decade or two ago what are now the flourishing towns of Oklahoma were merely wide open spaces, too much must not be expected. This state has had a rather unusual history which involved first a mad dash for land at the opening of the Cherokee and Lawton Strips. People were not much more than settled when oil was discovered and there was a free for all scramble for riches. All types of business were abandoned in the search for the elusive black gold. It is only after such energy is spent that people settle down to the real pleasure of owning homes and beautifying them. The future of Oklahoma had been too uncertain for many people to want to invest in property when at a minute's notice they might have to pick up and leave, consequently many who could own homes preferred to rent and make no permanent connections. People in rented places dared not invest in improvements and flowers because the minute they improved a place the money-mad landlord increased their rent. I have even witnessed an incident where rent was doubled by a California landlord who returned to see the city so prosperous and his property so improved by a home loving tenant. Disheartening, isn't it?

It has been an education and a pleasure to me to have stood by for nineteen years and watch Tulsa grow. Eighteen years of that time I have been intensely interested in gardening and helping others to an appreciation of flowers. My private gardens have been open to all who cared to visit them and aside from putting on one city wide flower show by myself I have assisted in those put on by the Garden Club since its inception. Since it has been my good fortune to visit many gardens, particularly iris gardens, I have tried to encourage and interest others in irises which are my hobby. My article "The Iris Carries On," one of a series of twenty articles published in *The Tulsa Tribune* three years ago, brought hundreds of visitors to my iris gardens.

Just as things were looking particularly bright where iris interests were concerned, the depression descended and possibly none were more crippled financially than the people of Oklahoma whose wealth is tied up in oil. Since all business is dependent on the oil

industry, people in all walks of life have been affected. This coupled with an intensely dry summer in 1931, an early awakening to growth, followed by March blizzards in 1932 which killed more than half of the iris buds in the early stages, has sort of smothered the interest people were showing. In some instances where I had virtually won them over to certain new and unusually outstanding ones, they came to me with catalogues for last year and the year before, calling attention to the drastic price cuts and lamenting the amount they had spent for something that could be had, in some instances, for half the next year.

By experience I find the surest way to create interest in better irises is to create competition. When two or three friends become interested in new things whether it becomes a fad or not to have the newest color, the largest flower, the most unusual type, etc., interest springs up and gains momentum as the blooming season advances. Two or three groups of this type can do more to add stimulus than all the talking one can do in favor of new iris.

When all is said and done, to properly judge an iris one must see it in its prime for irises have their beauty days and a day past the prime is too late and cold storage doesn't do the most wonderful iris any good. There is something of lustre and beauty that is lost.

The last three or four years I have been watching a number of varieties of iris, some I desired, others because I had heard them discussed and I was interested in their future. I have been particularly interested in the progress made in improving and stabilizing the colors pink, yellow and red. Apparently I have a flare for the orange pink and salmon pink shades the hybridizers have been able to produce lately, namely Clara Noyes, Mary Geddes, Hermene, etc. Rameses seems to be lovely everywhere it grows. King Juba. Noweta is a lovely new one. I would like to see Venus de Milo, Easter Morn and Polar King together. of Polar King behind Mr. Donahue's barn was something to ponder, especially after seeing so gorgeous a stalk of Essig's Easter Morn at Miss Sturtevant's. The stalk of Venus de Milo I saw was past its prime. Another I like was Lady Collet's Gold Stream. Shirvan was lovely and I saw no iris that stood up unhurt through rain like Depute Nomblot. Hernani was my choice of red irises. I have Dauntless and Numa Rumenstan and love them both. One has to hand it to Cayeux when it comes to reds. I think the prettiest blocks of irises I saw last year were of Dauntless and Midgard side

by side. The effect was exquisite. I have always thought Dr. Ayres' Indian Chief was a beauty too, but do not have it.

Among the yellows I thought Desert Gold a little too light to want it. Coronation was lovely the last two years and W. R. Dykes was too lovely for words. The first time I saw it, it was flecked and streaked, this time perfect. So I'm waiting for the price to suit my purse. Now that Pluie d'Or is coming within reach of most purses I would advise it, for it has fine color and multiplies well. Others more moderate in price that I am fond of are Midgard, Fragonard, Mrs. Edward Harding, Dolly Madison, which is always lovely, Realm and Sensation. If you can't have one of these, have the other lovely shades but quite different shape. Gay Hussar was a brilliant little iris that stood out in Mrs. Nesmith's garden and I remember liking the color of one of Cayeux's she had. I lost my notes on her garden, but I am glad to have some pictures of her trial beds. Her Oriental poppies added to a lovely setting.

I heard lots of comment on Selene, most of it favorable. Summer Cloud was a lovely one for a climate other than Oklahoma where light shades fade badly. I'm sure we could grow Black Wings to perfection. It was not as black this year as I thought it was, which makes me wish I could see the blue black one Jake Sass brought down to the Freeport Show again. It was lovely in spite of cold storage.

Some day I hope to know enough about irises to be a judge of their perfection.

OKLAHOMA CITY. Miss Stubblefield writes for the Iris Unit of the Garden Flower Clubs.

"Planting Season: For Central Oklahoma, September and October, if the soil is not too dry, are the right months as otherwise there is greater danger of rot and less assurance of continued growth from July and August. The pill bugs are also a greater menace at that season. Cupro-Jabonite is excellent for bruised rhizomes and we find that lime and wood ashes added to the soil intensifies the color of the flowers. The warm sunny winter days followed by March freezes are our chief difficulty. Sow seed in mid-November.

"The dwarfs begin in late February while the tall bearded begin the last of March and continue through April and May, the English and Japanese running into June. These last and *I. cristata* are difficult but the Spanish and Dutch are proving satisfactory.

"Lord Lambourne, Midgard, Asia, Mme. Henri Cayeux, Frieda Mohr, Rose Madder, Marquisette, Elsinore, Dolly Madison, Germaine Perthuis, all satisfactory whereas Citronella, Bruno, Ballerine, Souv. de Loetitia Michaud, Mme. Cecile Bouscant, Dominion, Candlelight, are not satisfactory chiefly because the extreme heat causes the standards to flop.

"The season permits combinations with rue, columbines, pyrethrum, philadelphus, Regal lilies, and the orange Lilium croceum."

THE FAMILY TREE

 $\textbf{Bruno} \times \textbf{King Tut:}$ quality, size, and vigor; notable seedlings of yellow bronze and red-purple edged tan, of deep brown and dark maroon, of light golden tan and red-purple.

King Tut × Bruno: relatively markedly less vigorous, large, or brilliant.

King Tut × Bruno: relatively markedly less vigorous, large, or brilliant.

King Tut × Bruno: relatively markedly less vigorous, large, or brilliant.

King Tut × Bruno: relatively markedly less two cases they surpassed the others, proving

King Tut to be of value both as seed and as pollen parent.

Bruno ×; markedly better as a pollen parent. E. G. Lapham, Indiana.

Fertility depends largely on weather during bloom and we need more data. William Mohr set pollen but I could not use it as flowers soon fade after

taking pollen or pollenizing.

Albicans would not cross with pallida or Ricardi but I had pods containing 52 seeds when crossed with Leverrier. Albicans, Surprise, and Chestnut were the strongest pod carriers and Dream, Leverrier, Autumn King, and Queen the richest in pollen. G. M. Allen, Texas.

Florida (DB) × Lent A. Williamson; dwarfs and intermediates but no tall

bearded.

Parc de Neuilly × Kalos; ½ Parc de Neuilly type, ½ good, large, but rather short plicatas.

Mme. Chobaut × Ambigu; one good plicata, balance blends of good form.

F. B. Rogers, W. Va.

Afterglow × Mrs. Neubronner Prairie Gold; Midgard (a chance seedling of Afterglow); Clara Noyes and No-we-ta (Midgard × King Karl).

Morning Splendor × King Tut gives a red strain, the flowers either large and heavily textured but rather clustered, or small and a better color.

Baldwin × King Tut; 8 seedlings including Rameses and Waconda. Cardinal × King Tut; King Juba and a few big variegatas. H. P. Sass, Ne-

Shekinah; though used since 1916 in a variety of combinations the seedlings have never shown any improvement in depth of color or size; the soft blends may be charming.

Juniata and other dark pallidas carry plicata consistently.

Mystery, the only one of many seedlings of Mrs. Horace Darwin worthy of introduction whereas the very similar Mrs. G. Darwin (with Caterina as pod parent) produced half a dozen worthies in the first pod. These included Sherbet which, though far from handsome, has proved a popular breeder and I have named at least a dozen of its seedlings from as many crosses and none with much resemblance to Sherbet itself. It has given white only when white was in the other parent. Grace Sturtevant.

The editor is indebted to Dr. Ford B. Rogers, Fairmont, W. Va., for this exchange of breeding notes. Dr. Rogers would go further and exchange also flowers or pollen and seedlings of desired strains.

IRIS DESERT GOLD (KIRK. 1929)

Iris Desert Gold was raised by Dr. James H. Kirkland, Chancellor of Vanderbilt University, Nashville, Tennessee. This Iris is one of the most outstanding varieties that have been raised in the United States and it came very near receiving the Dykes Medal in 1932. I still feel that Desert Gold deserves this highest award, but the time limit will prevent such a future award in its case, and at present Desert Gold holds two awards, an H.M., A.I.S., received in 1931 and an A.M., A.I.S. given in 1932. It will be noted that the contest for the Dykes Medal was so close that Desert Gold headed the list of Awards of Merit. Desert Gold is an early tall-bearded variety with a long season of bloom. In the locality of Boston and farther North the season is shortened and it blooms with the general run of tall-bearded but here near New York City, we get the early feature and it seems to retain this habit as one goes South.

Introduced in 1929, Dr. Kirkland has held Desert Gold at the original price while buyers (who have found it an easy grower) are already selling it at a much lower figure.

The habit is very fine; broad, sturdy foliage, disease resistant and many stalks of large, beautifully shaped, pale yellow flowers. There is little of the greenish in the cast of this yellow and it is a clean, pure color which holds in strong sunlight without fading and is seen equally well at mid-day.

Perhaps the most remarkable feature is the resistance of these delicately textured flowers to bad weather. After terrific heat in Connecticut last summer and a tremendous thunderstorm with torrential, pounding rain, all the stalks of Desert Gold and all the flowers (and there were at least two open on each stalk) were in perfect condition whereas in a very large Iris collection of all the best varieties this and three others, Mary Geddes, Santa Fe and Van Cleve, were the only varieties not completely ruined.

Chancellor Kirkland has raised a number of other fine Irises and among them Morning Glory and Blue Banner are outstanding. He is a keen Iris "fan" with a quiet and forceful enthusiasm and a thorough knowledge of what he wishes to do in Iris breeding. My experience with Desert Gold has led me to feel that it is a beautiful thing for any purpose, whether it be the show-table, house decoration or the garden and above anything else that I have encountered in the line of a pale yellow it is satisfactory in the garden.

ETHEL ANSON S. PECKHAM.



Iris Desert Gold (Kirk. 1929) A.M., A.I.S., 1932. A lovely pale yellow.

TENNESSEE

That Nashville, a city that has entered upon a five-year plan for planting irises, is a garden center is acknowledged. It is known for its daffodil display, one of the finest in the country at present: there are old gardens in its vicinity, that of Mrs. C. D. Bailey in Clarksville, of Mrs. Campbell in Franklin and many more. To iris growers Nashville is known by its seedlings, Chancellor Kirkland and T. A. Washington following in the footsteps of Floyd Brallior and C. P. Connell as hybridists of note. Mr. Connell compiled a symposium but rarely has the editor succeeded in securing articles from this source. He is glad that this spring will find him gathering information, not about irises, but about gardens and people.

From C. P. Connell.—Much has been said about the Nashville District, or the Middle South, which includes Kentucky, Tennessee, Alabama and Mississippi, as the Elysium Field for iris growing. In some modified measure this is true. Climate is temperate, the soil is the result of limestone erosion, silt and vegetable humus. These two fundamental factors are, however, open to critical attack. In midsummer the conditions are ideal; hot and dry enough to cure the rhizomes properly and nearly always wet enough to induce potential increase. Autumn is long and encouraging to fall bloomers.

Winter and early spring are the tricky periods for our iris there are frequent warm weeks during which iris of Ricardii or mesopotamica lineage are most apt to spring into soft young growth. Under more severely cold and fewer quick temperature changes these varieties remain dormant and undamaged. being dormant they will easily resist very low temperatures. March, being soft and full of flowing sap, a temperature of 25 is often fatal. In April, a temperature of 30 is severely damaging to These climatic changes are quick and range 40 degrees these types. over-night and account for our lack of success and enthusiasm for such varieties as Mme. Cecile Bouscant, Mme. Durrande, Mme. Claude Monet, Edith Cavell, and even the hardier Souv. de Loetitia Michaud. Many of the California productions fail to do well for these reasons. A large planting of Conquistador, which has for years done yeoman service, was demolished by a severe freeze (20 degrees) in March 1932 (only a few small buttons were left from several hundred plants). Argentina has been a complete failure due to climatic conditions. Purissima, Shasta and their sisters, have likewise suffered and are only grown successfully in special frames. This condition in a measure, led to my enthusiasm for Selene, the first large, tall, white, reliably hardy in my garden. The comments on the California productions are not to be taken as critical of the iris from that source, but rather as a statement that our local climatic conditions are not friendly. California oranges won't grow in Maine, which fact, after all, is neither the fault of California nor the oranges.

I am told that variagata derivatives, which thrive on the eastern seaboard, are poor doers in California. Many of the variegata derivatives are also worthless in the Birmingham District. There are few yellows which thrive in North Alabama. The variagata types are better performers in the eastern states than they are in Tennessee or Kentucky. Dominion is generally a failure in the southern district and I attribute this fact to variegata factors in its genealogy. The Dominion derivatives, however, are entirely free from these growing faults and our best introductions are succeeding generations of Dominion lineage. The Sass iris of certain types, such as King Karl, Midwest, Jubilee, succeed far better in Kansas (where I have seen, admired and bought them), than they do in my garden. Other Sass types, like Baldwin or Rameses, are splendid in their performance.

To revert to a discussion of Selene as a type, performing differently in different locations: In my garden it is very tall, large and wide-spread—in a colder climate and when blooming in cool weather the stalks are shorter and the falls are inclined to pinch in the newly established plants. It remains to be seen if this fault will occur in plants two or more years in one place. Dauntless has had more success in the east than in the west, and is much better in Connecticut than it is in Tennessee. I am told that it is little better than fair in Kansas.

In the opening statement I referred to our soil basis being from limestone erosion. I am beginning to wonder if our theory on lime for iris is not open to question, particularly in its effect on the quality of color. I have come to believe that soil with less lime is apt to produce stronger, richer color. Lent A. Williamson, as it grew in my garden, was of such a poor washed-out color that it was

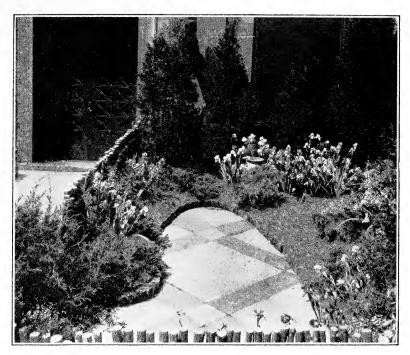
discarded. On the Eastern Coastal plain, where the soil is basically acid, this variety takes on a fine richness of color. I grow Souv. de Mme. Gaudichau in my town garden and its color is only fair. On my country hillside, where the soil is less "sweet," this is an excellent richly colored iris. I have an un-named seedling, a very pale blend (derived from Lent A. Williamson). In lime soil it is very lovely and fair, in acid soil the intensity of the color is increased and makes it a muddy colorless drab.

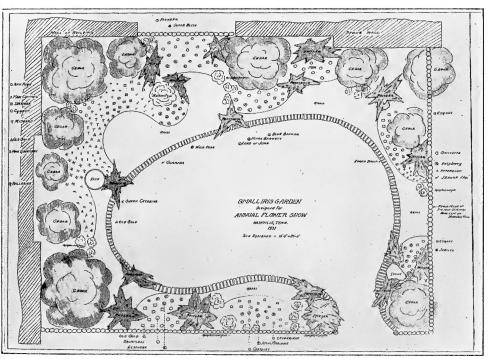
Cultivation and enriching the soil does improve the stature of the flower and the size of foliage and the rhizomes. Grown in loose, rich soil the stalks will be fine and tall, the foliage lush and the rhizome large. Plants in this condition are prone to rot. When grown on lean hard soil the rhizomes are small, dry and hard, but apparently immune to all type of rot. The stalks are short and the flowers small.

The iris borer is no nightmare to the Middle South iris grower—though he does damage in northern Kentucky. I have received plants from northern and eastern sources, in which borers were present. After the first season they have vanished completely. There is some natural enemy which consumes them.

I believe that Dr. J. H. Kirkland and myself are the only growers who have had the temerity to risk the introduction of novelties in the bearded type,—Mr. T. A. Washington, having largely confined his efforts to the beardless type, with the notable exception of "Mary Geddes," which, with Dr. Kirkland's unintroduced, but registered, "Copper Lustre" open up an entirely new field of color. Mr. Washington is one of the few hybridists who have the patience to work with the beardless type. He has had much success but modestly declines to speak of his work. He has produced a very wide range of beardless hybrids, many to be identified as similar to the types being found by Dr. Small in his Louisiana collections.

On the southeastern coastal plain and the Gulf plain, the bearded iris grow so poorly as to have almost negligible garden value. but here the beardless types take their place and are rapidly becoming known and popular. There are several notable iris collections in the Middle South. Mr. Sam Graham at Rome, Georgia; Mr. Clint McDade, in Chattanooga, Tennessee; Dr. J. H. Kirkland, Mr. T. A. Washington and Mr. Connell, in Nashville, Tennessee; Mrs. J. P. Norfleet, in Memphis, Tennessee; Dr. J. W. Scott, in





AT A NASHVILLE FLOWER SHOW.

Lexington, Kentucky; Mr. Sam L. Earle, in Birmingham, Alabama, all have large gardens of iris where visitors are cordially welcomed.

Some of the problems for the Southern hybridist are to find strong and vigorously growing variagata types,—Yellows that will bloom, Ricardi and mesopotamica types that will be hardy under quick temperature variations and, of course, new colors and types. Most strongly I would urge the Southern hybridist to experiment with the beardless types, for here lies a rich and almost unexplored field.

From Mrs. J. S. Routon, Paris, Tenn.—Twenty-five years ago, while attending a meeting of the State Federation of Woman's Clubs held in Nashville, Tennessee, it was my good fortune to be the house guest of Mrs. Katherine P. Wright. She showed me over her lovely garden. It was Iris time. To this visit, and to her, I owe my beginnings in many things both beautiful and interesting.

After returning hime, I received from my recent hostess, a market basket of Iris rhizomes. These I planted and replanted and multiplied, and my attempt to calculate the extent and location of the succeeding generations would be futile, as I have scattered them to the four corners of the earth—given away multiplied thousands and distributed them into many States.

For years I was content to go on growing and multiplying the few varieties that I had, then all at once, the unexpected happened. I again visited Nashville and the same gracious lady guided me not only into her own greatly extended and glorified garden, where blossomed the latest introductions in the Iris world, but to the superb plantings of Chancellor Kirkland and Messrs. Connell and Washington.

This was my first glimpse of really fine Iris, and I was "mad" to possess them. Since then I have gone on collecting and studying with interest every available bit of information, determined to establish and maintain a worth-while collection. I am collecting for the love of them and to secure a good list for hybridizing, upon which experiment I am entering in all humility, but with persistence—and great desire.

Planting in my own garden represents many varieties; I am therefore obliged to plant geometrically in Dutch beds. Gradually as I acquire sufficient of a greatly desired kind, I move them into the main garden and plant carefully.

The possible combination of Iris with other flowers varies in different localities. With us late tulips last until the early Iris arrives. Columbine affords one of the most pleasing combinations. Certain hemerocallis and some years candidum lilies, larkspurs, delphiniums and many early rock plants flower in time to insure nice combinations. Evergreens are not to be omitted as pleasing backgrounds, their dark green foliage and varying forms add dignity and beauty.

Shrubs of many kinds bloom at this season in our latitude—Scotch broom, lilacs, Viburnum carlesi, Philadelphus Virginal, weigelia, flowering peach, Cornus rubra, Cydonia, Kolkwitzia, Rhus, Tamarix and others afford many combinations.

A wide border at the foot of a long bank set with rock plants done in shades of yellow Iris was stunning. (I am partial to the bronzy and yellow tones.) In front of this Iris are great clumps of hardy pinks in shades of pale pink and lavender. Combinations are unending and largely a matter of personal taste. I prefer to plant shadings of one color and then add a splotch of contrasting color for emphasis. Study Nature in her blendings as a safe guide; a pansy bed, for instance. Colors which would clash in textiles, blend harmoniously in flowers. The atmosphere does it. And remember that white is the great harmonizer.

I am very definite in the opinion that each gardener should express his own idea in his garden, even though he makes mistakes. He is the artist, the garden is the picture. If he does his best it is far more desirable than to copy. Make each garden a self expression.

The Iris is my "hearts desire." No other plant is of easier culture, greater multiplication, more generous in variety, variation of color, wealth of bloom or species. Plant more Iris and spread abroad its gospel of beauty.

GARDEN EFFECTS AND IRIS COMBINATIONS

MRS. KATHERINE P. WRIGHT, Nashville

The first essential for successful combinations is good taste, the second is to know what to buy and where to plant it. Before I acquire an Iris I know definitely where it is to be planted, and what color a group needs to finish it. In changing an Iris or a plant for a more satisfactory combination, I take a bloom and go all over the garden to consider where the combination will be perfect.

When you buy be careful in your selection. Do not accept as gifts Iris or plants with which you are unacquainted. They will in all likelihood introduce a false note. Do not hesitate to decline them.

So far as I know colors, there is no discordant note in my garden. Any unsatisfactory combination is immediately changed. I never buy "bargain" plants nor mixed colors. "Better a year of Europe than a cycle of Cathay," applies with equal force to any worth-while gesture.

I like to plant groups of color, never lines. My preference is for soft shades, soft yellows, and plenty of them, pale pinks—self colors and pale blues. For example, in working out a satisfactory color scheme for Chancellor Kirkland's Desert Gold, of which I have a nice group, I tried every color and finally used the old time, exquisite, pale blue Celeste. It is not size that counts nor necessarily new varieties.

With Mr. Connell's stunning red Dauntless I used a soft brown self—the whole inside a soft yellow—and same colored beard. Back of this group were planted Yellow Moon, Pluie d'Or, Nebraska, Old Gold, etc. The brown Iris was among a discard of Chancellor Kirkland's seedlings, which by chance came to me. When it bloomed I showed it to him. He said, "That's a nice Iris." (Nice is about as great approval as the Chancellor gives.) "Where did you get it?" "It is one you gave me." "I have no recollection of it," he replied. Any way, it was so entirely different and so lovely I determined to give it an old time Southern aristocratic name, with the gentleman's approval, who added, "I wish I were

twins so I might have two named for me," I called it Foxhall Daingerfield,—that is the limit of distinguished "quality." I have been happy with the result. Since this lovely thing was not to be put on the market, nor exploited in any way, I did not submit it to the Grand Moguls of the A. I. S.

I have many of the new varieties and many of the choice old ones and have passed hundreds and hundreds along. If I am not satisfied with either the new or the old Iris they are passed along to some one who is.

The whole garden is planted with the same scrupulous regard to background and color.

I have either carefully supervised or personally planted every item in the garden. In Iris time the hedges are soft green, in them are planted Prunus persica, Magnolia Soulangeana, Bechtel's Crab. Cercis, Malus sanguinea, Philadelphus Virginal, Kolkwitzia, Wild Cherry, wild plum, wild Crab Apples, Cornus florida and rubra, Vitex macrocephala, Sumach, Scotch Broom, Forsythia, Viburnums, sterile and plicata, Sambucus, etc., some planted for blooms, some for foliage variety.

By the time the Iris is finished the garden is a-bloom with roses, climbing and bush, perennials and annuals of many kinds, lilies, pale Oriental poppies, lilies-of-the-valley by the hundreds, Shasta Daisies, Hawthorn, Hollyhocks, Heuchera, English primroses—wild plants of many varieties, ferns, wild phlox—and of course *Phlox divaricata*, Mertensia, etc.

The most noticeable planting is a group of forty Lycoris squamigera, among which is a suitable background of Artemisia Silver King. This planting is a "knockout," if I may use the term. It attracts more notice and favorable comment than anything in the garden.

There is always something to cut, always something to send out, the consummation of garden usefulness, plus the joy of cheerful giving.

The garden is open at all times; and there have been no depredations whatever.

Desert Gold is to my mind by far the most outstanding Iris in the garden, not too tall, not too large, soft clear yellow, beautiful form and texture. Blooms stood several days in perfect condition, through one day of beating rain followed by hot sun, and hot sun means hot. Every garden should have a name to "make it more bindin" as my dear old Mammie says: also a motto or two, which adds personality. These are mine: "How precious are thy thoughts unto me, O God, how great is the sum of them." Close by the street entrance is "Come into my garden for I adore it and wish to share its joys with you." Also, "Go often to the garden of thy friend, else weeds choke the unused path."

This beautiful inscription on a sun-dial is in process of construction:

Love's hour stands.

Its eyes invisible

Watch till the dial's thin brown shade

Be born, yea till the journeying line be laid

Up on the point.

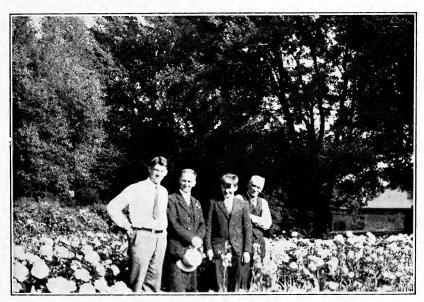
There are three weeping willows, one very large and old, two younger ones, three Hackberries, a large Magnolia grandiflora, two Gingkos, taller than the house, which I grew from seed. In looking over the lists, I am surprised at the omission of many plants and Iris, but I think enough have been mentioned to show what a comparatively small garden can be. This list does not include all annuals that are sown each year in every available spot. I select novelties, which keep one's interest at a high pitch. I purchase only from leading seedmen and therefore have splendid seed. No good results come from inferior seed. Be sure of that.

Along with trees and plants there are two good sized grass plots that play an important part in the picture.

That I love this little Eden is self evident. Howdy, everybody,—come to see us.

TEST GARDENS 1932

We have now sixteen official Test Gardens besides the California one which is in abeyance and with two promised and waiting until times are better to get under way (Guelph, Ont., and Ohio). We added one new Garden at Michigan State College of Agriculture, East Lansing, Michigan, with a possible extension Display Garden in connection with it at the Graham Experiment Station in Grand Rapids. Besides this, we have under this committee several display gardens that could not come under the regular Display Garden Committee. These are at Ohio State University (for species) at Simcoe, Ontario, on the grounds of Mr. H. H. Groff, the famous gladiolus breeder, and we have started Mr. Robert Foster off with iris species from Louisiana for tests to be made at the Bussey Institute and Arnold Arboretum.



Mr. Groff (Right) and Guests Among the Peonies.

Many boxes of plants have been shipped, seeds also, and we have helped a number of unofficial display gardens in parks, on school grounds at institutions, etc., by giving plants and advice. The chairman visited Mr. Groff at Simcoe and had an interesting and enjoyable experience viewing his thousands of seedlings and large plantings of new and fine varieties and while there saw the largest mass of Pluie D'Or in bloom of her experience. It is hoped that many members who may be in Canada this next season will look in on Mr. Groff, Mr. Miles and Professor Bunting for it will be well worth their while and there are other gardens and nurseries to visit in that country also.

Most of the Test Gardens have been marking time owing to lack of funds though they have received many plants and collections have been replanted and rearranged at Cornell and Oklahoma, while Kansas enlarged their plantation. Texas reported a dry summer. Missouri suffered from severe late frosts and lost the bloom on dwarfs and intermediates. In New York and Brooklyn the usual enormous amount of work was carried on and at the former place the beds of dwarf irises have been made into a rock garden with other plants added to improve the effect.

The chairman is very, very thankful to all who have helped her, and so many have, with plants, seeds, labor and interest and if she has not made proper reply to letters she asks consideration for her faults and hopes to be forgiven! Plants are still needed of newer sorts and we are still begging, so do not forget us! Thank you.— ETHEL ANSON S. PECKHAM, Chairman.

A list of donors follows:

Alexander, E. J.; Becker, Mrs. F.; Black, Mrs. M. E.; Brown, C.; Fairy Gardens; Hall, C. H.; Hires, Mrs. J. E.; Hudson, G. H.; Johnson, V. V.; Kellogg, Mrs. L. W.; Lapham, E. G.; Longfield Iris Farm; McDade, Clint; Miles, W.; New York Botanical Garden; Onsdorff, E. D.; Overlook Nursery; Pearce, R. D.; Peckham, A. W.; Peckham, E. A. S.; Pennington, Mrs. F. W.; Pfeiffer Nursery; Richer, J. M.; Riverview Gardens; Sass, J.; Skeels, H.; Skeels, Mrs. H.; Small, Dr. J. K.; Stevens, Mrs. F.; Stout, Mrs. C. H.; Taylor, W. R.; Thomas, G.; U. S. Dept. Agri., B. P. I.; Waller, Dr. A. E.; Washington, T. A.; Williamson, E. B.; Wister, J. C.

Display Garden, Dallas, Texas.—Because of the financial situation it was found impossible to enlarge our Iris Display Garden and adequately arrange the Iris planted there, so we have transferred the location to the campus of the Southern Methodist University. The university had a well chosen collection established in a most desirable situation, and to this has been added a number of the best varieties. This small, well-marked collection will soon at-

tract Iris lovers from all sections. Small groups of as many accurately labeled varieties as is possible to secure, rather than large plantings of a single kind is the plan and purpose of this garden.

University of Idaho, Sandpoint, Idaho.—The "Iris Display Garden" conducted in cooperation with the American Iris Society was especially colorful this year. Practically all the varieties had developed to a mature growth and produced an abundance of bloom. The season was favorable and the varieties were not injured to any extent by wind or rain. The blooming season extended from May 20 when the first of the dwarf varieties came in bloom to the middle of July when the Japanese varieties blossomed. The heaviest period of bloom was from June 10 to June 18.

An "Iris Day" was held for visitors on June 12. Hundreds of flower enthusiasts visited the station during the period of the blooming season, many coming from widely separated points. No additions were obtained from the Iris Society this season. Sixteen Japanese varieties were purchased by the station and added to that unit.

Three diseases were prevalent this season, namely, soft rot, leaf spot and Sclerotinia. Some control of soft rot was effected through the use of copper carbonate. The leaf spot did not cause serious damage. The Sclerotinia killed entire clumps where the disease had obtained a start and was not controlled by the application of copper carbonate.

The conclusion of another season will give a heavy growth of practically all bearded varieties. These will need resetting at that time and there will be a large increase to be disposed of. The garden now contains 278 varieties, of which 178 are in the bearded classes.

Cedarbrook Park, Plainfield, N. J.—Established by Plainfield Garden Club, 1932, under the Chairmanship of Miss Harriette R. Halloway. This garden was started through Mrs. Wells, of the Plainfield Garden Club, and Mr. Tracy, of the Union County Park Commission, with the help of the American Iris Society. The location was chosen—a basin near the playground for Japanese Iris and a plateau on the northwest corner for Siberian and Bearded Iris. The site was approved by the Olmsted Brothers, Landscape Architects of the Park, who on March 26th prepared the plan for the beds. The color scheme was made by Miss Halloway and Mrs. Wells. Beds were dug in April and were planted during the spring and summer.

The following plants are reported as being in the garden as of December 31st, 1932—Japanese Iris 263 plants including 24 named varieties, the others being seedlings. Siberian Iris 178 plants in 26 varieties; Bearded Iris 2900 plants in 241 varieties; Species, Miscellaneous, etc., about 100 plants in five kinds. The total in round numbers, 470 varieties and about 3400 plants. Plants were given by ten local members of the Garden Club, by the Park Commission and by seven members of the American Iris Society—Mrs. Cleveland, Mrs. Kellogg, Mrs. McKinney, Mrs. Peckham, Dr. Reed, Mr. Schreiner and Mr. Wister.

50-100 MOST POPULAR GOOD VARIETIES

SHERMAN R. DUFFY

Seventy-one accredited judges of the American Iris Society have nominated 535 irises as candidates for the 50 most popular irises in cultivation, believing them to be the best, the most popular, or the ones they would select if they were to start a new garden and were limited to this number.

Of this number, 10 or more judges voted for 107, (class 1), 5 to 10 judges for 60, (class 2), and 1 to 5 judges for 368, (class 3). An analysis of the vote is herewith presented:

Colors Named		Per Cent Total	10 & up	5 to 10	1 to 5	Balanced list
Whites	82	15	20	5	57	8
Blues	122	23	22	11	89	12
Reds	113	21	21	15	77	11
Blends	137	26	28	18	91	14
Yellows	81	15	16	11	54	8
						_
Totals	535	100	107	60	368	53

In selecting the first fifty, the tabulator has been the victim of atavism, repeating in essence the ancient Irish bull, "Divvil a wan but two." The 50 most popular iris number 53. Taurus hibernicus, if his presence is deemed undesirable, may be chased out of the pasture in this manner: Princess Beatrice and Mary Barnett, Sensation and Santa Barbara, are quite similar in coloring, so that by making a choice between each pair, and choosing between Pluie d'Or and Coronation which are so similar a collection of 50 varieties would hardly need both, the list is reduced to 50 and the bull is gone.

The question of selecting a properly balanced list has proved a troublesome one as at first there seemed no reasonable basis as the fifty highest scores or the ten high scores in each division did not seem adequately to provide for properly balanced collection. An analysis of the vote showing the percentages of each color section gave a basis that seemed the most reasonable of any that suggested itself. The pink lavender to red purple irises and irises of similar color effects which are blends far outstrip all others in popular demand as shown both by the vote and the sales records reported by several dealers. It also seemed to the tabulator that all irises which ten or more judges deemed worthy of consideration as among the fifty best and most desirable irises should be recorded so the best arrangement that occurred in studying this dilemma was to divide the list, passing the buck to iris admirers to eliminate any they deemed proper to bring the count to an even fifty.

Applying a percentage basis, figured on the percentage of the total in each color class to the total number nominated by the judges, to the 107 of class 1, a properly balanced list of 53 would be 8 whites, 12 blues, 11 reds, 14 blends and 8 yellows.

In the second list which numbers 54, there are a number of ties and irises quite similar from which a selection could be made to reduce to the limit of 50 but this tabulator does not care to take any such responsibility. It's too much of a soul struggle, as many judges complained, to make out a list of 50, as one made today you would probably change tomorrow and any fifty list sent in would be bound to omit some irises you would want included.

The first list cannot logically be declared to represent the 53 or 50 best irises in cultivation. There is little to choose between the first and second lists with the exception of the small yellow section in which the first eight contain the finest yellows at all known to the public. A number of irises in the second list and in class 2 are undoubtedly among the very finest there are and their small number of votes is due solely to the fact that they are not yet well distributed and known.

The same is true of the 1 to 5 class (3)

These include the new California Lady Paramount, Son Robert, and Sweet Alibi, W. R. Dykes' seedlings, the high rating yellows of the last rating list and possibly the best there are in yellows today as California judges assert but they are unknown outside of their native state; likewise, Mr. Williamson's beautiful red, Ethel Peck-

ham, which those who have seen it declare to be one of the finest of its type belongs in the higher lists, and there are many others.

The first and second lists, however, may be unhesitatingly commended to any one desiring to start growing irises and the great majority of them now are at reasonable prices.

One arbitrary change was made in selecting the first list. King Juba with 14 votes was placed in the first division instead of Nebraska with 22 in order to give representation to the variegata class. Both are originations of Mr. Hans Sass.

American breeders are far in the lead in lists. M. Cayeux is the individual leader in the 10 and up class with 12, Hans Sass being second with 11. Miss Sturtevant with a total of 19 in the 5 and upward, (9 being Class 1), leads all breeders. Hans Sass is second with 16, and Cayeux third with 14 in the list of 167 recommended by 5 or more judges.

Following is an analysis of the breeding records: in the 5 and up classes:

American: Whites 19; Blues 19; Reds 22; Blends 33; and Yellows 18; total 111.

Other: Whites 6; Blues 14; Reds 14; Blends 13; and Yellows 9; total 56. Among the breeders those with 5 or more varieties in the 10 and up class are H. P. Sass, Cayeux, Mohr-Mitchell, Bliss, Sturtevant, Williamson, Ayres, Millet, and Dykes; in the 5-10 and up classes, Sturtevant, H. P. Sass, Cayeux, Williamson, Bliss, Mohr-Mitchell, Ayres, Millet, Dykes, J. Sass, Connell, Kirkland with Morrison, Loomis, Shull, Vilmorin, Hall, Denis, Farr, Yeld, Essig, Foster, and Andrews credited with 2 to 4 varieties inclusive.

The most difficult feature of compiling these lists has been the confusion concerning color. The dividing line between a blue lavender and pink lavender, a blue purple and a red purple, a red or a red blend, a pink and a pink blend, is difficult to draw. King Tut, for instance, was found in the red, blend, and variegata lists. A few others were likewise trebly distributed.

At the start, the tabulator used the Check List as a guide but soon found so much disagreement with its color classification, that it seemed the sounder and more logical plan when a large majority of the judges disagreed with the Check List color classification, to accept their verdict.

Dolly Madison, which leads the list of blends, is classed under the red section in the Check List.* Thirty-eight out of 40 judges

* In publishing the Check List indications of color groups were included reluctantly as an aid to exhibitors and information concerning registered or newly introduced varieties was taken from descriptions. As these were, in those days, rarely based on the Ridgway Color Chart they led to even [50]

classed it as a blend and it is so listed. Cardinal, listed as a blend, was classed as a red purple by all but one judge. William Mohr, a blue purple in the Check List, a majority of the judges placed in the red purple class, a difficult decision. Cinnabar, classed as a blend, the judges in a majority of cases called a red purple. Candlelight, listed as a blue lavender, the judges decided was a blend; Vesper Gold, in the Check List as a yellow, was voted a blend, and so on. As these classifications are largely a matter of opinion majority opinion has prevailed in the color classification in the following lists:

WHITES, INCLUDING PLICATAS AND AMOENAS

20

No.	Vote	Name Breeder	N_0 .	Vote	Name Breeder					
1.	47	Los Angeles (Mohr-Mit. 1927).	5. 6.	$\frac{30}{29}$	Wambliska (Sass-J. 1930). True Charm (Sturt. 1920).					
2.	44	San Francisco (Mohr-Mit. 1927).	7.	26	Dorothy Dietz (Wmsn. 1929).					
$\frac{3}{4}$.	$\frac{41}{34}$	Mildred Presby (Farr 1923). Purissima (Mohr-Mit. 1927).	8.	25	Shasta (Mohr-Mit. 1927).					
BLUE LAVENDER TO BLUE PURPLE										
	39	Souv. de Mme. Gaudichau (Mil. 1924).	15. 16.	$\frac{28}{27}$	Sensation (Cay. 1925). Santa Barbara (Mohr-Mit.					
10.	37	Souv. de Loetitia Michaud (Mil. 1923).	17.	95	1925). Blue Velvet (Loomis 1929).					
11. 12.		Sir Michael (Yeld). Princess Beatrice (Barr	18.		Germaine Perthuis (Mil. 1924).					
13.	9.9	1885).	19. 20.		Mary Barnett (Cumb. 1926). Queen Caterina (Sturt.					
	33	Ballerine (Vilm. 1920). Baldwin (Sass-H. P. 1927).	20.	21	Queen Caterina (Sturt. 1918).					
PINK LAVENDER TO RED PURPLE										
21.		Frieda Mohr (Mohr-Mit. 1926).	27. 28.		Susan Bliss (Bliss 1920). Rheingauperle (G. & K.					
22. 23.	$\frac{45}{32}$	Dauntless (Con. 1929). Cardinal (Bliss 1919).	29.	18	1924). Red Dominion (Ayres 1931).					
24.	29	Morning Splendor (Shull 1923).	30.	16	William Mohr (Mohr-Mit. 1925).					
25. 26.		Indian Chief (Ayres 1927). Pink Satin (Sass-J. (1930).	31.	15	Cinnabar (Wmsn. 1928).					
BLENDS										
32.	44	Dolly Madison (Wmsn. 1927).	36.	32	Depute Nomblot (Cay. 1929).					
	41	Midgard (Sass-H. P. 1930). Rameses (Sass-H. P. 1929).	37.	30	Clara Noyes (Sass-H. P. 1931).					
35.	37	Mrs. Valerie West (Bliss 1925).	38. 39.	29 26	King Tut (Sass-H. P. 1926). Asia (Yeld 1916).					

more errors than we normally expect when we compare accurate descriptions with the color impression. That unity of opinion will ever be achieved in the case of some varieties is not to be expected.—Ed.

[51]

	No.	Votes	Name Breeder	No.	Votes	Name	Breeder		
	40. 41.		Cameliard (Sturt. 1927). Grace Sturtevant (Bliss		18	1928).	Cayeux (Cay		
	42. 43.		1926). Ambassadeur (Vilm. 1920). Mary Geddes (StahlWash.	45.	17	Zaharoon 1927).	(Dykes, Mrs	١.	
			1930).						
YELLOW INCLUDING BICOLORS									
	46. 47. 48. 49. 50.	49 29 22	Pluie d'Or (Cay. 1928). Coronation (Moore 1927). Desert Gold (Kirk. 1929). W. R. Dykes (Dykes 1926). Chromylla (Loomis 1931).	52.	17 16 14		. 1929). al (Sturt. 1924) (Sass–H. I		
			SECOND LIST OF M	os:	ГΡ	OPULAR I	IRIS		
			WHI						
	1	10				True Delich	+ (Stunt 1094)	\	
		$\frac{19}{19}$	Snow White (Sturt. 1926). Micheline Charraire (Den.		$\frac{14}{13}$		t (Sturt. 1924) lo (Ayres 1931)		
		10	1924).		$\frac{10}{12}$		(G. & K. 1910)		
		16	Selene (Con. 1928).	10.	10	Damozel (M	or. 1922).		
	$\frac{4}{2}$.		Easter Morn (Essig 1931).	11.			Dykes) 1923.		
	5. 6.		Polar King (Donahue 1930). Yves Lassailly (Cay. 1928).	12.	10	Ambrosia (8	Sturt. 1930).		
	0.	10	ives Lassamy (Cay. 1926).						
			BLUE LAVENDER	то	BLU	E PURPLE			
	13.	18	Black Wings (Kirk. 1931).	18.	12	Corrida (Mi			
		15	Meldoric (Ayres 1930).		12	Ann Page (
	15.		Wedgwood (Dykes 1923).		12		Mohr-Mit. 1929		
	16.	14	Geo. J. Tribolet (Wmsn. 1926).		$\frac{10}{10}$		ass–H. P. 1930 n (Mohr-Mit		
	17.	12	Swazi (Bliss 1922).	22.	10	1926).	n (MOIII-MI	••	
			PINK LAVENDER	то	RE	D PURPLE			
	23.	14	Seminole (Farr 1920).	28.	11	Dream (Stu	rt. 1918).		
	24.	14	Numa Roumestan (Cay.		10	Romola (Bli			
	0-	14	1928).		10	Labor (Cay.			
		$\frac{14}{13}$	Rose Dominion (Con. 1930). Joycette (Sass-J. 1931).		$\frac{10}{10}$	Aphrodite (Dykes 1922). ry (Kirk. 1929	\	
	27.		Marquisette (Cay. 1926).	04.	10	Morning Old	1y (IXII K. 1020	٠.	
			BLE	MT TO C					
	9.9	1.7				T1+	70 1000)		
	33. 34.		Bruno (Bliss 1922). King Midas (Mead 1928).	42.	$\frac{13}{11}$	Evolution (Gold (Wms:	n.	
	35.		Vesper Gold (Wmsn. 1926).	10.	11	1929).	oola (Whis	•	
	36.		Opaline (Wmsn. 1930).	43.	11	Elsinore (H	all 1925).		
	37.		El Tovar (Sass-H. P. 1929).		11		nd (Den. 1912).	
	38.	15	Candlelight (And. 1926).	45.		Persia (Ayr	es 1927).		
		15	Euphony (Sass-H.P. 1929). Ophelia (Cay. 1925).	46.	11	Coppersmith	(Shull 1926).		
	40.	13	Opnena (Cay. 1929).						
			YELLOWS INCLU	DIN	IG E	BICOLORS			
	47.	22	Nebraska (Sass-H. P. 1928).	51.		Henri Rivie	re (Mil. 1927)		
	48.	13	Flammenschwert (G. & K.		10	Citronella (Bliss 1922).	\	
	40	10	1920). Primage (Sturt 1925)	53.	$\frac{10}{10}$		eau (Cay. 1928 d (Sass- H . 1		
	49. 50.		Primrose (Sturt. 1925). Beau Sabreur (Wmsn. 1929).	J4.	10	1926).	u (bass-11.	•	
	[52]								
				_					

IRISES RECEIVING FROM FIVE TO TEN VOTES

6 Whites, Including Plicatas and Amoenas

8 votes—Taj Mahal (Sturt. 1921); 6—Chartier (Hall 1925), Rheintochter (G. & K. 1929); 5—Kashmir White (Foster 1913), Sante Fe (Mohr-Mit. 1930), Theodolinda (Ayres 1930).

11 Blue Lavender to Blue Purple

9—Moa (Bliss 1919), Blue Banner (Kirk. 1929); 8—Asphodel (Mor. 1926), Blackamoor (Sass-J. 1932), B. Y. Morrison (Sturt. 1918), Mount Royal (Morg. 1929), Royal Beauty (McKee 1931), Pacific (Essig 1929); 5—Crusader (Fos. 1913), Gleam (Nich. 1930), Tenebrae (Bliss 1922).

14 Pink Lavender to Red Purple

8—Coralie (Ayres 1932); 7—Airy Dream (Sturt. 1929), Mme. Cecile Bouscant (Mil. 1922), Pioneer (Bliss 1924), Trostringer (Sass-H. P. 1926), Magenta (Cay. 1927); 6—Frivolite (Cay. 1929), Peerless (Dykes 1924), San Gabriel (Dean 1921), Ethel Peckham (Wmsn. 1932); 5—Edouard Michel (Verdi 1904), Elizabeth Egelberg (Egel. 1930), Mary Elizabeth (Kirk. 1929, Waconda (Sass-H. P. 1931).

18 Blends

9—Allure (Mur. 1927), Petruchio (Mor. 1924), Quivera (Sass-J. 1928); 8—Sequoiah (Shull 1926), Jane Williamson (Wmsn. 1928); 7—Doxa (Sass-H. P. 1929), King Karl (Sass-H. P. 1925), Nepenthe (Con. 1928), Reverie (Sturt. 1920), Vishnu (Sturt. 1924), Mary Gibson (Per. 1922); 6—Cameo (Sturt. 1924), Gilead (And. 1931), K. V. Ayres (Ayres 1932), Spring Maid (Loomis 1930); 5—Aubade (Con. 1927), Mme. Cheri (Sturt. 1918), Ochracea (Den. 1919).

11 Yellows, Including Bicolors

9—Rialgar (Sturt. 1924); 8—Picador (Mor. 1931), Yellow Moon (Sturt. 1923), Aliquippa (Hall 1924), Gay Hussar (Wmsn. 1929); 6—Chasseur (Vilm. 1923); 5—Decennial (Wmsn. 1930), Shekinah (Sturt. 1918), Gold Standard (Edl. 1927), Iris King (G. & K. 1910), Nymph (Sass-H. P. 1927). A total of 60 varieties more.

RATINGS-1933 REGULATIONS

As the 1932 regulations of the Committee on Awards were not printed in the Bulletin a number of our members did not understand the conditions under which the 1932 judges operated. In order to make the 1933 regulations perfectly clear in the minds of our members and to correct several errors in the January Bulletin, the following statement has been prepared. The Committee on Awards met in Chicago on November 25, 1932 to draw up 1933 regulations. Since that time the new Chairman of the Committee, Dr. H. Everett, has been in frequent correspondence with his Committee members and the following instructions are being sent to the judges:

Judges are requested to rate all new varieties of the years 1930, 1931, 1932 and 1933 and any unintroduced varieties.

Rating will be on scale of points as published in the January 1933 Bulletin, page 7.

No ratings will be published unless five judges have sent in reports so that there will not be in future the possibility of unfair conclusions from small number of votes.

Judges are requested (1) not to vote on their own seedlings and (2) not to rate varieties which have not become established and therefore are not producing typical blooms.

The following directions have been given for awards: Honorable Mention.—The Committee on Awards shall given Honorable Mention only to varieties receiving at least five recommendations from the accredited judges and subject to the regulations above. It is hoped that the number of Honorable Mentions will not exceed five in any one official region in any one year. Award of Merit.—The Committee on Awards may give not more than five Awards of Merit yearly. Such awards shall be given only upon the recommendation of at least seven accredited judges. Such award shall be given only to irises officially registered and introduced during the current year or during the two previous years and which in previous years have been recommended for Honorable Mention. This same condition applies also to the Dykes Memorial Medal offered by The Iris Society of England and to be awarded yearly. This is the highest award that can be given to a new Iris. Upon the recommendation of seven or more accredited judges, the Committee on Awards may award this medal yearly subject to the confirmation of the Board of Directors.

GARDEN PICTURES 6

Displaying 50-100 Varieties

R. S. STURTEVANT, M.L.A.

As a problem in design the difficulty is in the number of varieties of varying colors to be displayed and as we classify the varieties into color groups so may we divide our area into visual units. The Whites show up from a distance across the lawn and as we approach we find a sharp contrast with the darkest of Oriental Poppies which (again from afar) have almost

blended into the dark yew hedge behind.

We enter a long path where light blue-toned irises and blush poppies deepen onward to dark lavenders and scarlets, thus marking emphatically the entrance to garden where the light tones of near whites, of blends, pale pinks, and creams encircle the central pool and plot of greensward. Beyond are the light pinks and to either side we may wander close to the dark blends; the reds to the right enlivened by variegatas and rich browns in small balanced placings, and the purple blends to the left snapped into contrast with a few vivid yellows. One feels behind these rich blends touches of orange and yellow Day Lilies glowing through the iris stalks and as the blends lighten lavender Thalictrums lead us around to the contrast of misty white rues and pink irises. As the pallidas and poppies keep pace in shade and tint so in our central beds Columbines in variety blend with the light irises.

No attempt at succession (after the Bearded Iris season) has been made but in early spring edging plants, dwarf irises, and narcissus (well in from the paths where the dying foliage will not show) may prove delightful and with the Intermediates would come late Cottage Tulips, their colors adjusted to the succession of companion plants-poppies, day lilies, columbines, and rue. That each of us will throw in an occasional exclamation

mark of color, a favored grouping, is a surety.

The plan strives to emphasize a feeling of space and distance: first the embracing beds by the lawn attract us to the wide grass path; then a narrowing of the entrance acts like "wings" on a stage and the path to the sunken panel is again narrower and wing-like. Heights and tones intensify this emphasis in perspective; first white against dark evergreen, then purple against gray stone and, at the end of the vista, misty white, pink, and gray wall against the background of encircling apple trees which, in bloom, aid

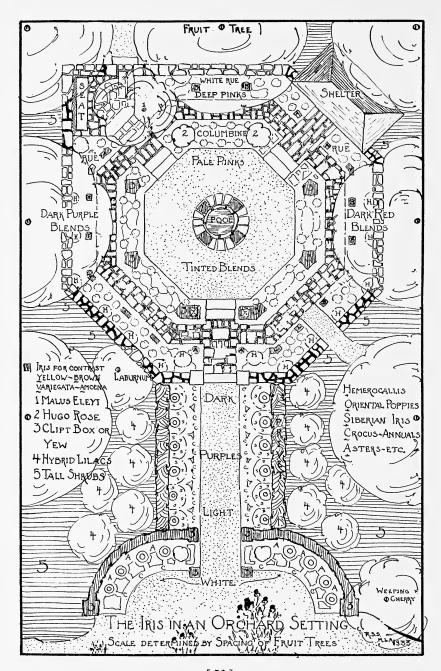
our tulip season.

I do not place each iris variety but I strongly advise the use of many more (or greater areas of) creams, near-whites, and pale blends, in the central beds as well a real splash of pink at the terminal of the vista. The plan allows for individual plants of whites, of darks, and deep yellows or variegatas but of these I find entirely too many in our selected lists. That many plicatas have enough color to be grouped with the purples is easily seen and also that a few are practically white in effect. Another lack in the list is the presence of few 24-32 inch varieties and they will be sadly needed along the grass path and around the central panel where there is sufficient foreground for us to wish to build the color up from ground level to the tallest spikes.

I am indebted to Mrs. Thomas Nesmith of Fairmount Gardens, Lowell, Mass., for assistance in selecting the following named varieties of Oriental Poppies and Hemerocallis. Again I find it most amusing to carry out a

color scheme with much variety of named material.

Oriental Poppies, dark. 8 plants, Beauty of Livermore, Colonel Bowles, Lulu Neeley, Mahony, Mrs. Baker, Parkmanni, Trilby; red to carmine, 2 [55]



plants, Empress of India, Wunderkind; cherry to rose, 2 plants, Henri Cayeux, Mrs. Stobart; medium, 4 plants, Enchantress, Delicata, Princess Ena, Princess Victoria Louise; light or white, 4 plants, Silver King, Watteau,

E. A. Bowles, Thora Perry. Plants spaced four feet apart.

Hemerocallis. 14 groups about four feet apart, seven to either side of entrance but not extending beyond middle of garden. Orange, Aureole, Dr. Regel, Middendorfi, George Yeld; tawny (planted at corner), Cissie Guisseppi and E. A. Bowles; orange yellow, Queen of May, Orangeman, Queen Mary, Mrs. J. R. Mann; (at corners) Bardelay, Wau-Bun; pale, Sunkist, Rose Queen.

Siberian Iris. To encircle poppies along path, 6 plants each, planted in semi-circles. Emperor, Caesar, Perry's Blue, Sunny Brook, and two white or light expensive novelties, White Dove, Mildred Stahlman (the old light

Siberians may prove as effective).

RATINGS, SCORING, ETC.

Space requirements are such that it has been necessary to shorten most arbitrarily the contributions received and we sincerely hope that it will not discourage further comments.

Ratings. The suggestions from E. G. Lapham are as follows: 1, Reports of x, xx, xxx on good varieties only—no ratings; 2, only xxx tentative permitted on first year plants; 3, no reports on original plant in originators garden as we want regional reports; 4, in case of a tie varieties placed in lower class.

From Mr. Simpson: Some surprising low scores at least one judge-Alcazar, B. Y. Morrison, El Capitan, Honeydrop, Imperator, Mme. Cheri, Nene, Petruchio, Rheintraube, Tropic Seas, Zaharoon 70,-Classic, Claude Monet, Dusk, Eclaireur, Fragonard, Georgia, Majestic 60, etc. etc. suggests the use of a hatchet by some one indisposed. Most of these should rate 70-80 and a few higher and such abnormal votes discredit an informative report.

Scoring. From Mrs. Lothrop: Does not "brilliance" belong with Garden Value? and resistance to weather depend on substance-and-texture? Should all be judged for garden value only?

The editor questions whether the qualities under Garden Value are not as subject to personal preferences as those under Outstanding Quality ever could be and he sympathises with Dr. Everett in wondering what, if any, effect the new scoring can have on restricting introduction. The old score really emphasized something much more important than a single plant or stalk-it attempted to prevent disappointment on the part of buyers and introduced a point of doubtful value into the judging of intrinsic qualities. That it failed to achieve this extraneous objective is proved.

Mr. Gersdorff: Form worth only 5%, the other 5 diverted to Quality. Substance must be separate from resistance to weather; massing counts more than carrying quality.

Reactions to January Comments. From Mr. Gersdorff: Varietal Notes actually accomplishes what ratings are supposed to do-they evaluate by I agree with Chancellor Kirkland (and the editor) that we drop locality. ratings.

From E. N. S. Ringueberg: A "rating" is an essentially unstable and variable quantity, but still a necessity to the continuance of improvement.

From William Miles: "Fixed" standards as suggested by Mr. Van Name would remedy the present faults.

57

R. S. Spender in the Garden Illustrated (Eng.), Jan. 21, 1933, gives an able note in response to a previous article by B. R. Long.

From Grace Sturtevant: I feel that I must make a strong plea for an immediate beginning on Mr. Van Name's standardization scheme—together with the establishment of regional recommendations; these are closely linked as the varieties chosen as standards should be widely grown and well-known, each in its region. Why waste this iris season?

If the judges do not know the old varieties let them study them and report and those that do can send in their list of standards for their own region. It is not work for a small committee but for the Accredited Judges

to decide.

I also prefer classes A, B, C, and D (or xxx, xx, x, etc.) as suggested by Chancellor Kirkland, the corresponding ratings not to be published and varieties below 60% (D class) completely omitted. The Committee on Awards should be restricted to the recommendation of varieties as based on the reports of the Accredited judges and a new committee should be appointed to study the "ramifications and points of practical application" and report to the Board of Directors in June or at a special meeting. Otherwise a year is lost and the problems remain just where they are—laid on the shelf.

The new score card is almost as bad as that of 1932 (I much prefer the California emphasis on dependability of performance, on grace, balance and branching of stalk) and the requirement of judging seedlings on exhibition by a garden score is too disappointing and poor to discuss.

From Mr. Van Name: The 1933 score is an improvement but "placement" should be given 5 under Stalk and I should be quite willing to see Stalk increased to 12, 13, or even 15 at the expense of Garden Value.

If "fixed" standards had once been established it would be practical to consider 100, not as a dead line, but as something to be attained and passed if the improvement in the irises continued. E.g., form (counting 10 on the 100 scale) might be assigned in full to certain varieties and new and improved varieties might be scored 11 or even 12, implying roughly an improvement of 20%. It is a modification of my system but I think practical in that it could be adopted gradually. To abandon 100 without the establishment of any standard ratings would, of course, be most unsatisfactory.

Though the editor feels that the new score card has not been sufficiently studied to be practical he feels strongly that the Committee on Awards has considered such suggestions both wisely and well. Mr. Duffy deserves special credit for his efficient and prompt handling of arduous compilations. Their decision to postpone regional ratings seems especially wise in two respects, first because the number of available judges in many regions is too small to form a "consensus of opinion" even if climatic conditions were uniform throughout the region and, second, because a report for any region or part thereof is primarily of interest to that region only and theirs should be the initiative. New England has its recommended lists, the South has done much in this issue. Let other localities be heard from when they feel the need.

HOW WERE THEY JUDGED

ROBERT WAYMAN

WE SHOULD HAVE MORE JUDGES (Continued from January issue.)

With the multiplicity of duties during the flowering season. with thousands of visitors to be given attention, I am quite sure that those Judges who are commercial growers, and who must make their livelihood out of growing and selling Iris, find little time for judging. At least that was my experience this year, and this probably accounts somewhat for Mr. Duffy's statement that less than half of the forty-seven judges sent in any ratings. no need of dropping the Commercial Growers as Judges for such help as they may be able to give, just so they are not permitted to judge their own introductions. But the present list of Judges should be added to, since the value of the Symposium depends largely upon the number of people reporting on an individual variety. It seems to me that this could be easily accomplished. the neighborhood of any garden of any importance there are certain enthusiastic Iris fans who are quite capable of judging, and who have the leisure time and make regular visitations to a near-by garden throughout the season in order not to miss anything. I am sure that they would be only too happy to act as judges, and that the Iris Society is missing much by not enlisting their services. The rules for judging of course should be sufficiently clear, so that they may know what is expected of them. We should have a hundred such judges. Letters written to owners of important private Iris gardens, as well as to Commercial Growers, would no doubt secure such a list.

It seems to me that the "rules of judging" should be rather an elaborate document. There are so many points of variance between Judges that should be ruled upon by some competent authority, and his decision become final. If, as Mrs. Hires has suggested in her article, 88 should be the highest rating possible on previous standard of judging, because no Iris can be said to be beyond the point of improvement in any one of the twelve points making up the rating, then the Judges should be informed that they are to rate no Iris over 88, and any ratings higher than this should be reduced

On the other hand, if this theory is erroneous, or is not to be accepted as a gauge, let us not have Judges using this theory erroneously in making up their ratings. I can easily see where the finest introductions should not rate over 80 under such a theory, with our present scoring system. And why leave only one point in each division for improvement? It is easily possible that there may be two or more improvements in each division, or even a dozen in the years to come. On this theory we would have to start everything now with zero to allow room for future improvement. course, it is a false theory and should be dissipated. judging by the ratings, it may be possible that some of the Judges are acting upon this theory in making up their ratings. We should judge by present standards of excellence. If a new white Iris is nearest to perfection on all points and equal to the finest of other colors, there is perhaps no reason why it should not be given a rating of 100, allowing for future reductions in this rating when improvements come along.

NOT WANTED

The application of the term "not wanted" I think is very much abused, and I believe should not be applied excepting after review by a competent board. Take Williamson's new variety, Ethel Peckham, as an example. One Judge reports it as "a handsome, large flowered, rich Iris''; another reports it as "by far Williamson's best Iris'; and that is saying a lot when we consider the many fine varieties Williamson has introduced; but a third Judge lists it as "not wanted," which seems to me to be rather autocratic in view of the fact that five jurors rate it 90, with a high of 97. The same judge reports it to be "identical in color with Joycette, but not so good." At least it is in good company, but since Joycette is rated 87 by eight Judges, and Ethel Peckham is rated 90 by five Judges, it is possible that this Judge may be mistaken in saying Ethel Peckham is not so good as Joycette. What gives an individual Judge the authority to decide for the flowering-loving public what is wanted and what is not wanted? Even if a Judge had such authority, does similarity of color to another fine Iris justify labelling it as "not wanted"? And I wonder if they really are "identical in color," and whether the Judge so reporting was depending on memory or had the two varieties side by side in making the comparison. For twenty-five years one of my principal responsibilities in the cotton goods business was preparing color combinations for textile designs, and I arranged thousands of them that were used in making several hundred million yards of textile floral I know something about how faulty memory can be in remembering exact tones and shades. Let me mention an instance that came under my notice this season. Immediately under Ethel Peckham in the Bulletin is Evening Splendour, my own introduction, reported "not wanted by two Judges," presumably the two who visited my gardens together late in the season. Splendour is an early variety and begins flowering here about the middle of May, and was therefore in poor condition when the Judges called.) One of the two Judges told me that Evening Splendour was "not needed because it is too near to Claret Cup," depending upon memory, of course, as to the color of Claret Cup. When I showed them Claret Cup, and the superiority of Evening Splendour, even so late in the season, was apparent, I was told that this was not Claret Cup. Well what are you going to do with a Judge whose memory is more dependable than what they see with their own eyes? Of course, this was Claret Cup, received by me from Mr. Mead, the originator, direct, but the report went in that Evening Splendour is "not wanted." The fact is that Evening Splendour is always wanted by people who see it in bloom in the garden during the proper season. It was the constant singling out of this variety over all others of its class, by visitors during the early season, that caused me to introduce it. If Evening Splendour is not wanted, then surely Aphrodite, Mrs. Marion Cran and others of this class are not wanted, as Evening Splendour is without a doubt the best of the lot. My opinion is that Judges should make their ratings according to rules laid down, and not take upon their shoulders the responsibility of determining for the whole world what is wanted and what is not wanted. After all, that is rather an all-inclusive term, and is but the opinion of one person who may be dead wrong. Red Giant is a variety that has been brusquely reported as "not needed," apparently by the same Judge, seeing it in my garden for the first time at the end of its flowering season, since no plants were released until this year. The fact is Red Giant is a greatly improved Cardinal, larger and redder, and, having no Dominion blood in it, is more rugged. Yet Cardinal is rated 86 by eight Judges. I do not care about these reports so far as my own introductions are concerned, because these two varieties will find their own place. I merely mention them to illustrate a point. But, nevertheless, such statements are taken seriously and Judges should find a way of expressing themselves with less finality in regard to a variety that they see for the first time, and on which their first glimpse cannot possibly be conclusive.

HULLABALOO ABOUT TOO MANY VARIETIES

And what is all this hullabaloo about too many varieties? "Variety is the spice of life," and every slight variation of color, form, size, height, fragrance, texture, etc., is fascinating to thousands of flower lovers. Many automobiles are somewhat similar, but nevertheless some prefer a Chevy, some prefer a Chrysler and some prefer a Ford (talking in "depression" terms), and of course no cotton goods expert can comprehend the myriads of textile patterns that are turned out annually to appeal to various tastes. worry because one cannot keep up with and tabulate and index and evaluate every new Iris? Even the plays in the movies that cost a fortune to produce are similar, and yet all find their adherents. If I had the space and the means to enjoy it purely as a hobby, I would have fifty pinks with about twenty-five of each variety, arranged in a proper setting. There would be large and small ones, tall and short ones, early and late ones; those with flaring falls and drooping falls, domed and open standards, in every shade and tint that has been originated to date, instead of fifty clumps of the best pink that would present a patch of color and beautiful scenic effect. I would lose none of this beauty, but each clump would hold an interest all its own, because it is "slightly different."

In another location I would have a hundred yellows, from cream to the deepest yellow. I would have Gold Imperial and Shekinah and Yellow Moon and Old Ivory, of course, and Aliquippa and Primrose and Sunlight and Chalice and Pluie D'Or and Golden Wedding and Coronation and G. P. Baker and Nymph and Primavera and Goldilocks and Desert Gold (notwithstanding the statement that both of these are "not wanted." They are no more alike than a lima bean is like a pea.) I cannot take the space to name the entire hundred yellow varieties I would want in such a collection. There would be soft yellows and medium yellows and deep yellows; yellows flushed with other tones, and striped yellows, and yellow bicolors.

In the blue tones I would start in with Lord of June and Neptune, and go right down the line; and so on, right through the color

range. I would probably wind up with 1500 varieties, and it would not be a museum of antiques either, but an exhibition showing Nature's niceties of variation in form, color, size and all that goes to make one flower different from another. As new varieties came out the collection would probably increase to 3,000 varieties. Of course, I would omit those that are too weak to stand on their own feet, and many a highly rated variety, beautiful, but not sufficiently hardy, would be conspicuous by its absence. We are breeding too many hothouse Irises these days, with an eye only to their beauty when well grown, without sufficient consideration to their garden value. As a result, many Iris enthusiasts are becoming discouraged by damage done through rot in unfavorable seasons.

I have seen many estates where a lavish expenditure of money had created a general effect that could be taken in at a glance—a masterpiece with no detail—thousands of plants creating a colorful effect, but nothing to hold one's attention beyond the hour. If a yellow Iris were used, there were thousands of one kind; if a white Iris, thousands of another kind, and so it went and the story was soon told. How much finer would be a planting that carries out the same color scheme, but with infinite variety to hold one's interest every minute throughout the season and add immeasurably to the pleasures of living, whether it be in a small garden or on a great estate.

The Supreme Architect of the Universe is a great believer in variety. That is why no two of us look alike, and that is why there are no two leaves on a tree exactly alike, even though they follow the same general pattern. It would be rather difficult to describe a million different faces, yet they all have an individuality that makes them different. There are millions of stars in the heavens that all look alike to the casual observer, but astronomers tell us they are all different and all interesting. I presume to some there are millions of them that are "not wanted," because to the unobserving mind they are "too much alike." Perhaps we should have just one, big, perfect, outstanding star in the heavens, unless one should come along with a display of fireworks or with red, white and blue stripes, or a three-cornered star, to make it "different." I have seen very few Irises that have not held some charm, and I am sure there are few of them that do not have many admirers. Even Lord of June is "wanted" by many, and is still one of our best sellers, notwithstanding the fact that some of our experts have long since classed it as "not wanted."

BIBLIOGRAPHY 1932

Compiled by Ethel Anson S. Peckham

Volume numbers in bold type followed by a colon, thus: 2:, page numbers followed by a period, thus: 166., * denotes illustrated, ** color plate, † worth-while articles.

alata), A Winter Blooming Iris. (I. C. Starker. Hort. 10: 18, 355. 15 Sep., 1932.

Alcazar rotting off at ground level, Iris. Gard. Ill. 54: 223. 9 Apr., 1932. Ambassadeur, Iris. Giard. Fiorito 2: 9, 166. Sep., 1932.**

American Irises, Native. E. A. S. Peckham. Yr. Bk., Iris Soc. (Eng.) 10-14. 1932.**

(American Iris Society) Iris Society Annual Meeting. Hort. 10: 12, 250. 15 June, 1932.

(American Iris Society) 1931 Report—Committee on Awards. A. I. S. Bull. **42**: 18–21. Jan., 1932.

(American Iris Society) Notice (Annual Meeting 1932). A. I. S. Bull. 42: 90. & back cover Jan., 1932.

American Iris Society (Notice of Annual Meeting). Flor. Ex. 79: 22, 27. 28 May, 1932.

American Iris Society Bulletin 42: 1-94. Jan., 1932.**†

American Iris Society Bulletin 43: "Arthur John Bliss," 1-60. Apr., 1932.*†
American Iris Society Bulletin 44: "Apogons," 1-44. July, 1932.*†
American Iris Society Bulletin 45: "Ratings," 1-56. Oct., 1932.*†

American Iris Society Membership List. Jan., 1932.

(American Iris Society) Minutes of Twelfth Annual Meeting, Brooklyn Botanic Garden, Brooklyn, N. Y. (1931). A. I. S. Bull. 42: 52-53. Jan., 1932.

(American Iris Society) 1931 Reports. Report of President. J. C. Wister. A. I. S. Bull. 42: 49-51. Jan., 1932.

American Iris Society Nominations (Notice). Flor. Ex. 80: 11, 24. 10 Sep., 1932.

(American Iris Society) (Publications, etc.), Notice. A. I. S. Bull. 42: 86-88. Jan., 1932: Bull. 45: 50-52. Oct., 1932. (American Iris Society) Ratings 1932. A. I. S. Bull. 45: 1-15. Oct., 1932.

(American Iris Society) Report of Test Gardens 1931. E. A. S. Peckham. A. I. S. Bull. 42: 70-75. Jan., 1932.

American Iris Society. (Review Bulletin.) Flor. Ex. 79: 26, 19. 25 June,

American Iris Society's Annual Meeting, Boston 1932. M. H. W. Lloyd. Bull. Gard. Club Am. 4th Ser. 22: 46-46. July, 1932.†

American Iris Society Test Gardens. A. I. S. Bull. 42: 89-90. Jan., 1932;

44: 38. July, 1932.

(American Iris Society) The Formation of an Iris Society 1919-1920. A. J. Bliss. A. I. S. Bull. 43: 7-8. Apr., 1932.

aurea, Iris. G. Yeld. Gard. Ill. 54: 562. 17 Sep., 1932. Paragraph only. Autumn Flowering Irises. H. M. Hill. Flow. Grow. 19: 4, 162. Apr., 1932. Award, Foster Memorial Plaque (To Mr. R. W. Wallace). Yr. Bk. Iris Soc. (Eng.) 29-31. 1932.

Award; 1932 (France), Dykes' Medal, Yr. Bk., Iris Soc. (Eng.) 10. 1932. 261-262.; 263-264. June, 1932. (Awards) Bearded Irises at Wisley. F. W. Hellings. Yr. Bk., Iris Soc. (Eng.) 71-72. 1932.

(Awards, Commendations, Eng.) Joint Iris Committee. Gard. Chron. 3rd. Ser. 91: 484. 25 June, 1932.

[64]

(Awards) (Christie-Miller Cup Competition) The Iris Society. Gard. Chron. 3rd. Ser. 91: 153. 27 Feb., 1932.

(Awards) Christie-Miller Cup Competition. Yr. Bk., Iris Soc. (Eng.) 46. 1932.

(Awards) Dykes' Memorial Medal (France). Yr. Bk., Iris Soc. (Eng.) 45. 1932.

(Awards) Iris Show (London, 1932). Gard. Chron. 3rd Ser. 91: 481-482. 25 June, 1932.

Awards, 1931, English. A. I. S. Bul. 42: 23. Jan., 1932.

Awards (A. I. S), 1931 Report-Committee on. A. I. S. Bull. 42: 18-21. Jan., 1932.

Awards, On. J. M. Shull. A. I. S. Bull. 42: 21-23. Jan., 1932.

(Awards Paris 1932). Rev. Hort. 104: 163. 16 July, 1932. Awards (Show, London, Eng.) Prizes and. Yr. Bk., Iris Soc. (Eng.) 37-43.

Bearded Flag Iris. F. C. Stern. New Flora & Silva 4: 4, 277-231. July, 1932.†

Bearded Flag Irises-II, Notes on. F. W. Hellings. Gard. Ill. 54: 160. 12 Mar., 1932.†

(Bearded Irises). Gard. Chron. Am. 36: 1, 13. Jan., 1932.

(Bearded Irises). S. B. Mitchell. From a Sunset Garden, Doubleday, N. Y. 97-113. 1932.†

Bearded Irises at Wisley (Awards). F. W. Hellings. Yr. Bk., Iris Soc. (Eng.) 71–72. 1932.

Bearded Trises at Wisley 1931. Jour. Roy. Hort. Soc. 57: Pt. 1, 70-74. Jan., 1932.

Bearded Trises in 1932. G. Yeld. Gard. Chron. 3rd. Ser. 92: 58. 23 July, 1932.*†

Bearded Irises, Notes on. E. P. McKinney. N. J. Gard. 5: 2, 80-83. Aug., 1932.†

Bearded Irises, Some Suggestions on the Colour Grouping of. L. F. Pesel. Yr. Bk., Iris Soc. (Eng.) 47-49. 1932. Bearded Iris, Notes on the Hybridization of. L. F. Pesel. Gard. Ill. 54:

554. 10 Sept., 1932.†

Bearded Iris, Notes on Hybridization of the. (Repr. Gard. Ill.) L. F. Pesel. Flow. Grow. 19: 12, 534. Dec., 1932.

Bearded Iris, The Modern. H. H. Groff. Canad. Hort. 55: 4, 96. Apr.,

Bearded Iris, The New Classification for. A. I. S. Bull. 42: 25. Jan., 1932. (Beardless Irises, Bulbous and). S. B. Mitchell. From a Sunset Garden, Doubleday, N. Y. 79-96. 1932.

Beardless Iris Project. G. M. Reed. Brook. Bot. Gard. Rec. 21: 2, 54-58

Mar., 1932. Beardless Iris Test Garden, Brooklyn. G. M. Reed. A. I. S. Bull. 42: 70-

72. Jan., 1932. Berating the Iris Weedlings. E. A. S. Peckham. Hort. 10: 17, 314. 1 Sep., 1932.

Bibliography (hybridization). G. Negodi. Nuovo Gior. Bot. Ital. New Ser. **39**: 2, 222. 1932.

Bibliography 1931. Comp. E. A. S. Peckham. A. I. S. Bull. 42: 76-85. Jan., 1932.

Bibliography of the Writings of A. J. Bliss on Irises. E. A. S. Peckham. A. I. S. Bull. 43: 51. Apr., 1932.

Bibliography on Hybridization. L. F. Pesel. Flow. Grow. 19: 12, 534. Dec., 1932.

Bliss, His Contributions, A. J. R. S. Sturtevant. A. I. S. Bull. 43: 5-6. Apr., 1932.

(Bliss Irises) A List. Comp. E. A. S. Peckham. A. I. S. Bull. 43: 47-50. Apr., 1932.

Bliss, Irises Raised and Named by Arthur John. E. A. S. Peckham. A. I. Ś. Bull. 43: 32–46. Apr., 1932.*

Bliss, Mr. A. J. E. Phillpotts (Repr. The Times). A. I. S. Bull. 43: 4. Apr., 1932.

Bliss on Irises, Bibliography of the Writings of A. J. E. A. S. Peckham. A. I. S. Bull. 43: 51. Apr., 1932.

(Bliss) Seedlings that Await Introduction. R. S. Sturtevant. A. I. S. Bull. 43: 46–47. Apr., 1932.

Boston, Combined Flower Shows in. Hort. 10: 12, 250. 15 June, 1932.

Boston 1932, American Iris Society's Annual Meeting. M. H. W. Lloyd.

Bull. Gard. Club Am. 4th Ser. 22: 46-49. July, 1932.

Botrytis on Rhizomatous Iris, A New Species.
ton. Mycologia 24: 6, 469-476. Nov.-Dec., 1932.

bracteata, Iris. North Wales. Gard. Chron. 3rd. Ser. 91: 120. 13 Feb.,

Breeders and Introducers, Additions to List of. A. I. S. Bull. 42: 24-25. Jan., 1932.

(Breeding Irises). S. B. Mitchell. From a Sunset Garden, Doubleday, N. Y. 114-131. 1932.†

Brooklyn—Beardless Iris Test Garden. G. M. Reed. A. I. S. Bull. 42: 70-72. Jan., 1932.

Bucharica, Iris. North Wales. Gard. Chron. 3rd. Ser. 91: 138. 20 Feb., 1932.

Bucharica, Iris. W. Miles. Canad. Hort. 55: 7, 164. July, 1932.

(Bulbous and Beardless Irises). S. B. Mitchell. From a Sunset Garden, N. Y. 79-96. 1932.

(bulbous) Speeding the Blossoming of Iris. D. Griffiths & R. C. Wright. Flor. Ex. 79: 12, 50. 19 Mar., 1932.

Bulbs, Northern Iris. Flor. Ex. 80: 16. 24 Sep., 1932.

(Canada), Iris Display Garden. Canad. Hort. 55: 4, 97. Apr., 1932.

Characteristics of Irises. A. J. Bliss. A. I. S. Bull. 43: 15-18. Apr., 1932. Chelsea, Irises at. Yr. Bk., Iris Soc. (Eng.) 62-63. 1932. (Chelsea Show), Lilies and Irises. Gard. Chron. 3rd Ser. 91: 407. 28 May,

1932.

Christie-Miller Cup Competition (Awards). F. W. Hellings. Yr. Bk., Iris Soc. (Eng.) 46. 1932.

(Christie-Miller Cup Competition) The Iris Society (Awards). Gard. Chron. 3rd. Ser. 91: 153. 27 Feb., 1932.

Chrysanthemums and Irises. June. Gard. Work Amat. 37: (4) 1072. 19

Nov., 1932. Cinnabar, The Tall Bearded Iris. E. A. S. Peckham. Hort. 10: 6, 118. Mar., 1932.* 15

Classification, Colour. R. S. Gard. Ill. 54: 88. 13 Feb., 1932; 182. Mar., 1932.

Classification, Colour. Countess Senni. Gard. Ill. 54: 137. 26 Mar., 1932. Classification, Colour. F. Burton. Gard. Ill. 54: 212. 9 Apr., 1932. Classification, Colour. G. Dillistone. Gard. Ill. 54: 367-368. 18 June,

1932.†

Classification for Bearded Iris, The New. A. I. S. Bull. 42: 25. Jan., 1932. Classification of Bearded Irises, Colour. Gard. Chron. 3rd. Ser. 91: 133. 20 Feb., 1931.

Cold Greenhouse, Irises for the. T. Gard. Work Amat. 37: (6) 1074, 11. 3 Dec., 1932.*

Cold Storage for Iris Bloom. G. H. Graham. Flow. Grow. 19: 8, 365. Aug., 1932.*†

Colour Classification. G. Dillistone & F. R. H. S. Gard. Ill. 54: 137-138. 5 Mar., 1932.

Colour Classification. R. S. Gard. Ill. 54: 88. 13 Feb., 1932; 182. 26 Mar., 1932.

Colour Classification. Countess Senni. Gard. Ill. 54: 183. 26 Mar., 1932.

Colour Classification. F. Burton. Gard. Ill. 54: 212. 9 Apr., 1932. Colour Classification. G. Dillistone. Gard. Ill. 54: 367-368. 18 June, 1932. Colour Classification of Bearded Irises. Gard. Chron. 3rd. Ser. 91: 133. Feb., 1931.

Colour Classification, The Iris Society. Gard. Ill. 54: 142. 5 Mar., 1932. Colour Grouping of Bearded Irises, Some Suggestions on the. L. F. Pesel.

Yr. Bk., Iris Soc. (Eng.) 47-49. 1932. Comments on Varieties. S. R. Duffy, T. T. Hires, H. H. Everett. A. I. S. Bull. 45: 16-24. Oct., 1932. (Comments) Others. A. I. S. Bull. 45: 24-33. Oct., 1932. Constitution and Rules of the Iris Society (Eng.). Yr. Bk., Iris (Eng.) 5-6.

1932.

Continuous Bloom, Iris for. H. M. Hill. Flow. Gard. 19: 1, 6. Jan., 1932. Crested Irises, Blue and White. Mrs. G. L. Clement. Hort. 10: 7, 151. 1 Apr., 1932.

Cretan Iris, The Neglected. S. S. Berry. Hort. 10: 1, 9. 1 Jan., 1932. Crocuses and Irises. J. E. Grant-White. Gard. Work Amat. 36: (23) 8. 1 Oct., 1932.*

Crosses with Plicata Irises, Some. B. R. Long. Yr. Bk., Iris Soc. (Eng.) 55-60. 1932.

Crossing, Theories in. A. J. Bliss. A. I. S. Bull. 43: 19-23. Apr., 1932. Cultivation of Iris, First Principles in the. (Rep. Gard. Ill.). G. P. Baker. Flow. Grow. 19: 4, 162. Apr., 1932.†

Damp or Dry? Sir A. Hort, Bart. V. M. H. Yr. Bk., Iris Soc. (Eng.) 14-18. 1932.†

Desert Gold, The Iris. E. A. S. Peckham. Hort. 10: 13-14. 282. 1-15. July, 1932.

Development of Interest in IRIS in the United States, The. C. P. Connell. Jour. Tenn. Acad. Science 7: 3, 163-175. July, 1932.*†

Dichotoma, Iris. H. M. Hill. Flow. Grow. 19: 3, 109. Mar., 1931. Diseased Iris. F. Burton & F. W. Hellings. Gard. Ill. 54: 62. 30 Jan., 1932. Diseased Iris. Gard. Ill. 54: 631. 15 Oct., 1932.

Display Garden, Iris (Canada). Canad. Hort. 55: 4, 97. Apr., 1932. Dutch Iris. F. Bahr. Flor. Ex. 80: 20, 12 Nov., 1932. Dwarf Iris—1932. K. F. Fellows. Nat. Hort. Mag. 11: 4, 303-307. Oct., 1932.*†

Dykes and Mons. F. Denis, Extracts from correspondence between Mr. W. R.

Yr. Bk., Iris Soc. (Eng.) 22-28. 1932.†

Dykes' Medal Award, 1932 (France). Yr. Bk., Iris Soc. (Eng.) 10. 1932.

Dykes Memorial Medal (France) (Awards). Yr. Bk., Iris Soc. (Eng.) 45. 1932.

Editorial. R. E. S. Spender. Yr. Bk., Iris Soc. (Eng.) 7-10. 1932. English Irises, Success with. J. E. Grant-White. Gard. Work Amat. 36: (13) 1055, 9. 23 July, 1932. Exhibitions in Tokyo, Iris and General Horticultural. Gard. Chron. 3rd.

Ser. 92: 90. 6 Aug., 1932.

Fan Honored (H. H. Groff), Iris. W. Miles. Canad. Hort. 54: 3, 62. Mar., 1932.

Fibre, Irises in. Gard. Work Amat. 36: (23) 5. 1 Oct., 1932. Paragraph only.

Flag Irises. Gard. Work Amat. 36: (14) 1056, 9. 30 July, 1932.

Flag Irises in Bud. A Warner. Gard. Ill. 54: 76. 6 Feb., 1932. Paragraph

foetidissima), A Useful Iris for Shade (I. Gard. Work Amat. 36: (18), 5. 27 Aug., 1932.

Foster Memorial Plaque Award (1932) (to Mr. R. W. Wallace). G. Dillistone. Yr. Bk., Iris Soc. (Eng.) 29-31. 1932.*

(France) (Awards) Dykes Memorial Medal. Yr. Bk., Iris Soc. (Eng.) 45.

(France) Dykes' Medal Award 1932. Yr. Bk., Iris Soc. (Eng.) 10. 1932. (France) Irises (Paris Show). Gard. Chron. 3rd. Ser. 91: 425. 4 June, 1932.*

Garden, An Iris. K. C. Perkins. Bull. Gard. Club Am. 4th Ser. 19: 60-63. Jan., 1932.

Garden, Irises in the. Canad. Hort. 55: 6, 145. June, 1932.

Garden, When Selecting Irises for Next Year's. R. S. Sturtevant. 10: 11, 227. 1 June, 1932.*

Genealogy, A Bit of Iris. R. S. Sturtevant. Hort. 10: 9, 191. 1 May, 1932. Germanica, Vermehrung von Iris. T. E. & M. Geier. Gartensch. 13: 9, 107. Sep., 1932.

Gormanii, Iris. J. W. Besant. Gard. Chron. 3rd. Ser. 92: 97. 6 Aug. 1932.* Group of Irises (Juno), An Attractive. J. E. Grant-White. Gard. Work Amat. 36: (4) 1046, 11. 21 May, 1932.

Hana-shobu by Doctor Miyoshi, Album of. Trans. G. M. Reed & Bunkio Matsuki. A. I. S. Bull. 44: 3-29. July, 1932.*†

Hoogiana, Iris. H. L. Milne. Gard. Chron. 3rd. Ser. 92: 95. 6 Aug., 1932. Paragraph only.*

Hunting for Rarebits II. E. A. S. Peckham. A. I. S. Bull. 44: 29-37. July, 1932.*

(hybridization), Bibliography. G. Negodi. Nuovo Gior. Bot. Ital. New Ser. 39: 2, 222. 1932.
Hybridization, Bibliography on. L. F. Pesel. Flow. Grow. 19: 12, 534.

Dec., 1932.

(Hybridization) How to Manufacture Your Own Iris. R. M. Carleton.

Flow. Grow. 19: 11, 490. Nov., 1932.
(hybridization) nel genere "Iris," Ibridazioni. G. Negodi. Nuovo Gior.
Bot. Ital. New Ser. 39: 2, 209–222. 1932.**

Hybridization of Bearded Iris, Notes on the. Gard. Ill. 54: 554. 10 Sep.,

1932.

Hybridization of the Bearded Iris, Notes on. (Repr. Gard. Ill.) L. F. Pesel. Flow. Grow. 19: 12, 534. Dec., 1932.†

iberica, Hoffm., Iris. B. Y. Morrison. Nat. Hort. Mag. 11: 3, 226. July, 1932.*

Ibridazioni (hybridization) nel genere "Iris." G. Negodi. Nuovo Gior. Bot. Ital. New Ser. 39: 2, 209-222. 1932.*†
Illinois, Varietal Notes from. S. R. Duffy. A. I. S. Bull. 42: 66-69. Jan.,

1932.

innominata, Iris. D. Sherrard. Nat. Hort. Mag. 11: 4, 332. Oct., 1932.* innominata, Iris. D. Sherrard. A. I. S. Bull. 45: 332. Oct., 1932.*

Insole—an appreciation, Violet. O. Murrell. Gard. Ill. 54: 553-554. 10 Sept., 1932.

Insole, Miss Violet. R. S. Yr. Bk., Iris Soc. (Eng.) 31–32. 1932. Insole, Miss Violet. F. W. Hellings. Yr. Bk., Iris Soc. (Eng.) 31. 1932. Introducers, Additions to List of Breeders and. A. I. S. Bull. 42: 24-25. Jan., 1932.

Introductions, 1931. A. I. S. Bull. 42: 25-34. Jan., 1932. Introductions (1931), Outstanding Iris. C. McDade. Gard. Ill. 54: 251. 23 Apr., 1932.

Iris. (Poem). W. H. W. Bliss. A. I. S. Bull 43: 3. Apr., 1932.

Iris. Countess Senni. Giard. Fiorito 2: 8, 152-154. Aug., 1932. Display Garden, Iris. Canad. Hort. 55: 4, 97. Apr., 1932. Irises and Alpines. Sir W. Lawrence, Bart. V. M. H. Gard. Ill. 54: 738. 10 Dec., 1932.

Irises (Chelsea Show), Lilies and. Gard. Chron. 3rd. Ser. 91: 407. 28 May, 1932.

Irises (Paris Show) (France). Gard. Chron. 3rd. Ser. 91: 425. 4 June, 1932.*

Irises Raised and Named by Arthur John Bliss. E. A. S. Peckham. A. I. S. Bull. 43: 32-46. Apr., 1932*
Iris Lover's Paradise, An. S. T. Bartlett. New Outlook. New Ser. 8: 27,

6360 Cont. 645. 6 July, 1932. Iris, Orchid of the Garden, The. F. J. Wiener. Gard. Chron. Am. 36: 8,

263. Aug., 1932; 301-302 & cont. 313. Sept., 1932.*†
Iris—Past, Present and Future, The. H. Weed. Flow. Gard. 19: 7, 297-

299. July, 1932.

Iris Season, Impressions of the. W. E. Saunders. Canad. Hort. 55: 8, 181-182. Aug., 1932.*†

Iris Society (Annual Meeting) The. Gard. Chron. 3rd. Ser. 92: 368. 19 Nov., 1932.

Iris Society, (Christie-Miller Cup Competition) The. Gard. Chron. 3rd. Ser. `27 Feb., 1932. **91**: 153.

Iris Society (Eng.), Constitution and Rules of the. Yr. Bk., Iris Soc. (Eng.) 5-6. 1932.

Iris Soc. (Eng.) Membership Roll. Yr. Bk., Iris Soc. (Eng.) 74-75. 1932.

Iris Society (Eng.), Year Book. 1-83. 1932.**†
Iris Society 1919-1920 (A. I. S.), The Formation of an. A. J. Bliss. A. I. S. Bull. 43: 7-8. Apr., 1932.

Iris Society's "Year Book" (Eng.) (Review). Gard. Chron. 3rd. Ser. 92: 223. 24 Sep., 1932. Iris, The Classic. A. T. Johnson. Gard. Chron. Am. 36: 6, 207-208. June,

1932.*

Iris, Truly the Flower for All. L. L. Madsen. Better Homes & Gard. 10: 9, 25 & cont. 96. May, 1932.

Isoline, A Beautiful Iris. W. E. Saunders. (Repr. Gard. Chron.) Canad. Hort. 55: 12, 270. Dec., 1932.

Italy, Irises in. Countess Senni. Yr. Bk., Iris Soc. (Eng.) 60-62. 1932. Italy, Varietal Notes from. Countess Senni. A. I. S. Bull. 42: 53-56. Jan., 1932.

January, Irises in bud in. C. M. Gard. Ill. 54: 104. 20 Feb., 1932. Japanese Irises. W. E. Wright. Gard. Chron. 3rd. Ser. 92: 20, 9 July,

1932. Paragraph only.

Japanese Irises in a Pool. C. Kendall. Hort. 10: 4, 72. Feb., 1932. japonica, Iris. Gard. Ill. 54: 178. 19 Mar., 1932. Paragraph only.

Joint Iris Committee. Gard. Chron. 3rd Ser. 91: 452. 11 June, 1932.

Joint Iris Committee (Awards, Commendations, England). Gard. Chron. 25 June, 1932. 3rd. Ser. 91: 484.

Judging Irises. T. T. Hires. A. I. S. Bull. 45: 33-40. Oct., 1932.

(Juno) An Attractive Group of Irises. J. E. Grant-White. Gard. Work Amat. 36: (4), 1046, 11. 21 May, 1932.

Legendary History of the Iris. M. L. Counsell. Flow. Grow. 19: 5, 223. May, 1932.

London, Eng.) Prizes and Awards (Show. Yr. Bk., Iris Soc. (Eng.) 37-43. 1932.

(London 1932), (Awards) Iris Show. Gard. Chron. 3rd. Ser. 91: 481-482. 25 June, 1932.

(London 1932) Fine Iris Show. Flor. Ex. 80: 2, 11. 9 July, 1932. (London 1932) Iris Show. Gard. Chron. 3rd. Ser. 91: 481-482. 1932.

London) The Iris Society (Show. Sir W. Lawrence, Bart. V. M. H. Louisiana, Irises of. Percy Viosca Jr. Flow. Grow. 19: 9, 386-387. Sep., 1932.

Manufacture Your Own Iris, How to (Hybridization). R. M. Carleton. Flow. Gard. 19: 11, 490. Nov., 1932.

Manure on Iris. Mrs. C. Cawthon. Flow. Grow. 19: 5, 217. May, 1932. Paragraph only.

Many Things, On. A. J. Bliss. A. I. S. Bull. 43: 8-15. Apr., 1932.* [69]

Membership List (A. I. S.). Jan., 1932. Membership Roll (Iris Soc. (Eng.)). Yr. Bk., Iris Soc. (Eng.) 74-75. 1932. Michigan Peony and Iris Society Annual Show (Report). Bull. Am. Peony Soc. 31: 50, 16-17. June, 1932.

Minuta, Iris. E. K. Lawrence. New Flora & Silva 5: 1, (17) 49. Oct., 1932.*

Modern Bearded Iris, The. H. H. Groff. Canad. Hort. 55: 4, 96. Apr.,

Modern Iris, The. R. E. S. Spender. Gard. Ill. 54: 552-553. 10 Sep., 1932; 569-571. 17 Sep., 1932.*†

Names Approved in 1931, but not Registered, Iris. A. I. S. Bull. 42: 43-46. Jan., 1932.

Names Unapproved or Under Investigation, Varietal. A. I. S. Bull. 42: 46-47. Jan., 1932.

name wanted, An Iris. Gard. Ill. 54: 153. 12 Mar., 1932.

Native American Irises. E. A. S. Peckham. Yr. Bk., Iris Soc. (Eng.) 10-14. 1932.**

Nebraska, Varietal Notes from. Dr. H. H. Everett. A. I. S. Bull. 42: 61-68. Jan., 1931.

Newer Irises, Report on Some of the. G. L. Pilkington. Yr. Bk., Iris Soc. (Eng.) 65-68. 1932.†

New Iris Worth a Trial. W. Miles. Canad. Hort. 55: 4, 82-83. Apr., 1932. New Zealand, Irises in. J. Burgess. Yr. Bk., Iris Soc. (Eng. P) 19-21.

Nice, Irises at. E. H. Woodall. Gard. Ill. 54: 355. 11 June, 1932. 1931, Irises in. (Repr. Gard. Ill.) Flow. Grow. 19: 3, 109. Mar., 1932.

1932, Bearded Iris in. G. Yeld. Gard. Chron. 3rd. Ser. 92: 58. 23 July, 1932.*†

Northwestern Iris Bulbs. Flor. Ex. 80: 13, 16-24. Sept., 1932. Notes, Iris. Mrs. C. Cawthon. Flow. Grow. 19: 11, 490. Nov., 1932.

Notice (A. I. S.) (Publications). A. I. S. Bull. 45: 50-52. Oct., 1932.

November Blooming Iris, My. M. S. Smith. Flow. Grow. 19: 6, 276-277. June, 1932.

Oakland Spring Garden Show, The. E. O. Essig. A. I. S. Bull. 45: 40-42. Oct., 1932.

Observations, Iris. H. H. Groff. Canad. Hort. 55: 2, 29. Feb., 1932.

ochroleuca, Iris. Gard. Ill. 54: 140. 5 Mar., 1932. Officers 1932 (A. I. S.) A. I. S. Bull. 42: 2. Jan., 1932; 43: 2. Apr., 1932; 44: 2. July, 1932; 45: 2 Oct., 1932.

Ohio, "Iris Gossip," Varietal Notes from. E. H. Bretschneider. A. I. S. Bull. 42: 63-66. Jan., 1932. olbiensis) Henon×(Iris Korolkowii) Regël, Étude cytologique de l'hybride

(Pogo-regelia) (Iris. M. Simonet. Comp. R. Acad. des Sc. Fr. 194: 1678. 1932.

olbiensis) Henon × (Iris Korolkowii) Regël, Étude cytologique de l'hybride (Pogo-regelia) (Iris. by M. Simonet. (Review) M. M. Bull. Soc. Bot. Fr. 79: 536. 1932.

Oncocyclus Iris. Flow. Grow. 19: 5, 205. May, 1932.

Onco-cyclus Irises of Palestine. G. P. Baker. Gard. Ill. 54: 555. 10 Sep., 1932.

Oncocyclus Iris, Growing the. R. M. Carleton. Flow. Grow. 19: 6, 276. June, 1932.†

orchioides, Iris. R. E. A. Gard. Ill. 54: 102. 13 Feb., 1932. Orpington, Irises at. F. W. Hellings. Yr. Bk., Iris Soc. (Eng.) 63-65. 1932.

Palestine, Onco-cyclus Irises of. G. P. Baker. Gard. Ill. 54: 555. 10 Sep., 1932.†

Paris 1932) Iris (Show. Rev. Hort. 104: 124. 16 June, 1932.

Paris 1932) (Show. Rev. Hort. 104: 163. 16 July, 1932.

Paris Show 1932) Iris. J. M. Duvernay. Bull. Soc. Nat. Hort. Fr. 5th. Ser. 5: 296-299. June, 1932.* F 70]

patula, Iris. K. Ugrinsky. Gartensch. 13: 6, 113. June, 1932.*†
Pests: Their Detection and Control. Slugs (Irises). Garden. Gard. Chron. Pests: Their Detection and Control.

3rd. Ser. 92: 12. 2 July, 1932.*

Pezels. Yr. Bk., Iris Soc. (Eng.) 71-72. 1932.

Pillnitz, Iris Schau (Show) in. G. V. Gartensch. 13: 97. Aug., 1932.

Planting Flag Irises and Daffodils. J. E. Grant-White. Gard. Work Amat. 36: (16) 8. 13 Aug., 1932.

Plant Irises, The Time to. H. W. Groschner. Hort. 10: 17, 318. Sep., 1932. "Poor Judges." E. A. S. Peckham. A. I. S. Bull. 42: 3-12. Jan., 1932.* Pots, Irises in. R. Gard. Work Amat. 35: (15) 11. 6 Feb., 1932.

Progress in America, Iris. Mrs. D. Pattison. Flor. Ex. 79: 24, 29. 11

June, 1932. Plicata Irises, Some Crosses with. B. R. Long. Yr. Bk., Iris Soc. (Eng.)

55–60. 1932. Purissima, Iris. G. L. Pilkington. Gard. Ill. 54: 547-548. 10 Sep., 1932.

Rare Iris Types, Some Interesting and. H. Weed. Flow. Grow. 19: 5, 203-204. May, 1932.

Ratings, Comments on the System of. R. G. Van Name. A. I. S. Bull. 45: 46-48. Oct., 1932.

Ratings, Comments on the System of. R. S. Sturtevant. A. I. S. Bull. 45: 48-50. Oct., 1932. Ratings 1932 (A. I. S.) A. I. S. Bull. 45: 1-15. Oct., 1932. Red Irises, On. W. J. McKee. A. I. S. Bull. 42: 60-61. Jan., 1932.

Registrations for 1931. A. I. S. Bull. 42: 35-43. Jan., 1932.

Reminiscences. R. W. Wallace. Yr. Bk., Iris Soc. (Eng.) 69-71. reticulata, Iris. B. Y. Morrison. Nat. Hort. Mag. 11: 2, 142. 15 Apr., 1932.*

reticulata, Iris. M. P. Tubby. N. J. Gard. 4: 5, 281. May, 1932. Reticulata, Iris. W. Miles. Canada Hort. 55: 5, 125. May, 1932. Reticulata Irises. J. P. Shanahan. Gard. Ill. 54: 722. 3 Dec., 1932.*

Root Rot, An Experience with Iris. J. H. Cummins. Hort. 10: 17, 317. Sep., 1932.

rosenbachiana, Iris. (Repr. Gard. Ill.) R. E. Arnold. Flow. Grow. 19: 8, 365. Aug., 1932.*

Sand, Irises in. Sir. W. Lawrence, Bart. V. M. H. Gard. Ill. 54: 381. June, 1932.*†

Schau (Show) in Pillnitz, Iris. G. V. Gartensch. 13: 97. Aug., 1932. Schreiner—1877-1931, Francis Xavier. R. S. Sturtevant; E. N. S. Ringueberg, R. M. Cooley. A. I. S. Bull. 42: 12-16. Jan., 1932. seedlings), The Hon. Secretary at Home (Mr. Pilkington's.

R. E. S. Spender. Yr. Bk., Iris Soc. (Eng.) 68-69. 1932.

Seedlings that Await Introduction (Bliss). R. S. Sturtevant. A. I. S. Bull. 43: 46-47. Apr., 1932.

Shade (I. foetidissima), A Useful Iris for. Gard. Work Amat. 36: (18) 5. 27 Aug., 1932. Paragraph only.

Show), (France) Irises (Paris. Gard. Chron. 3rd. Ser. 91: 425. 4 June, 1932.*

(Show) in Pillnitz, Iris Schau. G. V. Gartensch. 13: 97. Aug., 1932.

Show), Lilies and Irises (Chelsea. Gard. Chron. 3rd. Ser. 91: 407. 28 May,

(Show, London, Eng.), Prizes and Awards. Yr. Bk., Iris Soc. (Eng.) 37-43. 1932.

Show (London 1932) (Awards), Iris. Gard. Chron. 3rd. Ser. 91: 481-482. 25 June, 1932.

Show (London 1932) Fine Iris. Flor. Ex. 80: 2, 11. 9 July, 1932.

Show (London 1932) Iris. Gard. Chron. 3rd. Ser. 91: 481-482. 25 June, 1932.

(Show London), The Iris Society. Sir W. Lawrence, Bart. V. M. H. Gard. Ill. 45: 375. 18 June, 1932.

[71]

Show 1932 (Eng.), The Iris. R. S. Yr. Bk., Iris Soc. (Eng.) 33-37. 1932.
show 1932), Iris (Paris. J. M. Duvernay. Bull. Soc. Nat. Hort. Fr. 5th. Ser. 5: 296-299. June, 1932.

(Show Paris 1932), Iris. Řev. Hort. 104: 124. 16 June, 1932.

(Show Paris 1932) Rev. Hort. 104: 163. 16 July, 1932.

Show (Report), Michigan Peony and Iris Society Annual. Bull. Am. Peony Soc. 31: 50, 16-17. June, 1932.

Shows Held in Cooperation with the A. I. S. 1932, Iris. F. L. Karcher. A. I. S. Bull. 45: 43-46. Oct., 1932.

Shows in Boston, Combined Flower. Hort. 10: 12, 250. 15 June, 1932. Show, The Oakland Spring Garden. E. O. Essig. A. I. S. Bull. 45: 40-42. Oct., 1932.*

Show, 28th June, Irises at the R. H. S. Amateur's. Yr. Bk., Iris Soc. (Eng.) 63. 1932.

Sindjarensis, Iris. Hon. Lady Cecil C. B. E. Gard. Ill. 54: 305. 21 May,

sindpers, Iris. B. Y. Morrison. Nat. Hort. Mag. 11: 1, 58-59. Jan., 1932.* Southern California, Varietal Notes from. L. M. Lothrop. A. I. S. Bull. 42: 56-60. Jan., 1932.

Southwest, The Iris in the. M. P. Scruggs. Hort. 10: 17, 316. Sep., 1932. Souvenir de Mme. Gaudichau, Iris. G. Yeld. Gard. Ill. 54: 88. 13 Feb., 1932. Paragraph only.

stylosa, Iris. Mrs. A. M. Bromhead. Gard. Ill. 54: 140. 5 Mar., 1932.

stylosa, Iris. E. A. Bunyard. Gard. Ill. 54: 244. 23 Apr., 1932.

stylosa in Algiers, Iris. G. Jekyll V. M. H. Gard. Ill. 54: 135. 5 Mar., 1932.†

Succés universitaire (Mons. M. Simonet). Rev. Hort. 104: 146. 16 July, 1932.

Symposium, Perhaps? A. I. S. Bull. 42: 16-18. Jan., 1932. Synonymous Names. A. I. S. Bull. 42: 47-49. Jan., 1932.

Tall Bearded Iris Cinnabar, The. E. A. S. Peckham. Hort. 10: 6, 118. 15 Mar., 1932.*

Tall bearded Iris, The. H. H. Groff. Canad. Hort. 54: 3, 60. Mar., 1932. Test Garden), Iris and Narcissus Collections (Report. E. A. S. Peckham. Bull. N. Y. Bot. Gard. 14: 54, 317. 25 May, 1932.

Test Garden, Brooklyn—Beardless Iris. G. M. Reed. A. I. S. Bull. 42:

70-72. Jan., 1932.

Test Gardens, A. I. S. A. I. S. Bull. 42: 89-90. Jan., 1932; 44: 38. July,

Test Gardens 1931, Report of. E. A. S. Peckham. A. I. S. Bull. 42: 90-75. Jan., 1932.

tingitana, Iris. H. M. W. Gard. Ill. 54: 75. 6 Feb., 1932.

tingitana, Iris. R. B. Gard. Ill. 54: 88. 13 Feb., 1932. Paragraph only.

tingitana, Iris. Mrs. Monkhouse. Gard. Ill. 54: 104. 20 Feb., 1932.

tingitana unsatisfactory, Iris. Gard. Ill. 54: 134. 27 Feb., 1932.

Tokyo, Iris and General Horticultural Exhibitions, in. Gard. Chron. 3rd. Ser. 92: 90. 6 Aug., 1932.

Troubles, Overcoming Iris. E. N. Nesmith. Hort. 10: 8, 172. 15 Apr., 1932.†

unguicularis (stylosa), Iris. N. G. Hadden. Gard. Ill. 54: 73. 6 Feb., 1932.* unguicularis (stylosa), Iris. T. T. Shawcross. Gard. Ill. 54: 88. 13 Feb., 1932. Paragraph only.

unguicularis (or stylosa), Iris. S. S. Gard. Ill. 54: 123. 27 Feb., 1932. United States, The Development of Interest in IRIS in the. C. P. Connell. Jour. Tenn. Acad Science 7: 3, 163-175. July, 1932.*†

Varietal Notes from Illinois. S. R. Duffy. A. I. S. Bull. 42: 66-69. Jan.,

Varietal Notes from Italy. Countess Senni. A. I. S. Bull. 42: 53-56, Jan. 1932.†

Varietal Notes from Nebraska. Dr. H. H. Everett. A. I. S. Bull. 42: 61-63. Jan., 1932. [72]

Varietal Notes from Ohio, "Iris Gossip." E. H. Bretschneider. A. I. S. Bull. 42: 63-66. Jan., 1932.

Varietal Notes from Southern California. L. M. Lothrop. A. I. S. Bull. **42**: 56–60. Jan., 1932.

Varieties, On. A. J. Bliss. A. I. S. Bull. 43: 24-32. Apr., 1932.

White and Yellow Bearded Irises. G. Yeld. Gard. Ill. 54: 547. Sep., 1932. William Mohr (Iris). Giard. Fior. 2: 5, 93. May, 1932.**

Winter Blooming Iris, (I. alata), A. C. Starker. Hort. 10: 18, 335. 15 Sep., 1932.

Winter Iris Notes. J. K. Small. Jour. N. Y. Bot. Gard. 33: 386, 26-31. Feb., 1932.

Wisley (Awards), Bearded Irises at. F. W. Hellings. Yr. Bk., Iris Soc. (Eng.) 71–72. 1932.

Wisley 1931, Bearded Irises at. Jour. Roy. Hort. Soc. 57: Pt. 1, 70-74. Wisley, Selected for Trial at. Yr. Bk., Iris Soc. (Eng.) 43. 1932. Wrong with the Iris, What is. H. H. Groff. Canad. Hort. 55: 1, 9. Jan.,

1932.†

Yellow Irises, Some of the Desirable. H. M. Hill. Flow. Grow. 19: 10, 447-448. & cont. 453. Oct., 1932.*†

Zaharoon, Iris. Giard. Fior. 2: 4, 78. Apr., 1932.

VARIETAL NOTES

Meldoric, Black Wings, or Blue Velvet-take your choice! My own is Meldoric because of its brilliant golden beard. Such depth of color demands

a relieving note, else the flower becomes too sombre.

Why are we so reluctant to bestow the Dykes Medal? The French and English award their medals with less hesitation and, sometimes, with far less provocation. I believe Meldoric is a worthy contender. It seems to me the finest thing in a very full class. Perhaps I am rushing in where angels would not, but if left to me Dr. Ayres and Mr. Williamson would both receive the Dykes award. Some day an iris Mussolini may (possibly) handle these things better.

King Midas (Mead) is a gorgeous medley of colors which attracts the eye at a distance and pleases even more on close inspection. It will probably fall

in the Intermediate class and give its colleagues a run for their money.

"Eros" (Mead) is the most exquisitely colored iris one can imagine,—a pink if you choose to call it that, but unlike any pink you ever saw. It has one serious defect—there is an awkward space between the flowers and the foliage and Mr. Mead intimated that it would not be introduced for some years if at all. Dr. F. M. Hanes, N. C.

Flutterby is one of my favorite garden irises and I have the same type in a batch of Ochracea \times Shekinah crosses but they are a foot higher, a little deeper and with more white in the falls. They are really better in the garden than big things like Helios.

Airy Dream is the best all-around pink I have seen with the exception of two sister seedlings of Pink Satin which are too close for introduction though not

for distribution under number.

Ambrosia? is it pink or white? Dr. Everett says pink and as beautiful as Imperial Blush which is a bit bigger and deeper pink perhaps. I have not seen Ambrosia but the other is a beauty. S. R. Duffy, Ill.

Wambliska in Nebraska is all I could ask of any iris but I cannot con-

sistently recommend it from its showing in the East.

Joycette (1931) vs. Ethel Peckham (1932). Joycette is distinguished with extreme difficulty though a better color and almost a self,—the standards of Ethel Peckham a little more twisted and frilled. Is there no way of introducing only one of them. H. H. Everett, Neb.

What would we have done if Miss Sturtevant had not given us Reverie to go with Ambassadeur? It is equally late, almost equally tall, and its soft rose and cream is the perfect foil for Ambassadeur's sombre beauty. Generally it stands up all alone after everything else has gone for neither Ochracea nor Amneris are good with it.

Such a variety in White even among Prof. Mitchell's seedlings alone, one would think it impossible, yet the warm glowing white of Shasta is different from the snow white of Purissima or the beautiful gray white of Santa Fe and

all they have in common is the fine flare of their falls.

I think there are very few which may be called Blue but among them are the old Celeste, Corrida, Ideal, Wedgwood, Periwinkle (Wal.), and perhaps Zampa. A second more doubtful list would include Bonnie Blue, Commodore, Belladonna, Boy Blue, Rodney, or Hussard. (I should add for deeper tones Du Guesclin, Chester Jay Hunt.—Ed.) Sirius, Joya, and Amneris are quite the best dark blues, the latter a brilliant bold color.

Who can definitely pigeon hole Souv. de Loetitia Michaud for instance? neat incomparable iris, it was again 55 inches high and bloomed with extra-

ordinary freedom, its glistening flowers rising above everything else.

There are fewer good lilaes than lilae-blues or lilae-pinks. My list would be very small indeed,—Mlle. Schwartz, Azyiade, Eventide (a most enchanting American variety), Ingres, and Arsace. Rajput is fine but a deeper color and Avalon leans to pink.

Padre and Ĉaptain Courageous, both flowered late and made a fine effect rich rose-mauve. Romance was low this first year and Dr. Charles Mayo became a beautiful clump of lilac pink when established so that I expect more of

Romance later. Countess Senni.

Rose Dominion, Red Radiance, and Red Robe, the latter if it develops height and branching the second year I should place first for beauty and richness of color and texture. To me Rose Dominion has a slightly more pleasing color tone than Red Radiance.

Desert Gold deserves award as it is a thoroly fine iris and the best in its color class that I have seen. Clara Noyes was somewhat disappointing in height and shape of bloom (perhaps a young plant) but the color is so gorgeous and unusual that its deficiencies in other respects may well be overlooked. Except in height Rameses leaves little to be desired.

Selene is undoubtedly impressive but I think Santa Fe has better shape and texture. Chrysoro as I saw it had rather small blooms even for an Intermediate but of a wonderfully pure and intense yellow. R. G. Van Name, Conn.

The comparison of New England Recommendations with the Whites of the 50–100 list is rather entertaining and one wonders what other regions may do. Of the 20 whites, amoenas, and plicatas generally found popular New England omitted in its 23 only San Francisco, Purissima, Micheline Charraire, Selene, Damozel, and Moonlight, the first two only appearing among the highest 50. Micheline Charraire and probably Purissima were naturally omitted as being neither sure-fire growers nor equal to some real novelties. Selene clearly does not measure up to Easter Morn and is of similar height, nor Damozel to Los Angeles or perhaps the lighter True Charm, and Moonlight is none too good a grower.

From another point of view the 20 popular whites may have some interest to collectors but of what value are they to the average gardener? Seven were introduced in 1930 or 1931 and are still expensive (Polar King, at least, has been grown in but one garden). We expect but little choice among Amoenas but among plicatas List 1 offers us Los Angeles, San Francisco, and True Charm, a lower variety; list 2, True Delight and Damozel, while New England offers

five other variations in tone or height.

As we look further the chief lack of the so-called popular list is varieties for the front of the border, varieties that are inexpensive and cheap, suited to an average garden. In January, 1928, we reported the results of a questionnaire SENT TO ALL MEMBERS, 162 of whom responded as to their dozen or twenty-five favorites (a) of the old varieties, (b) among the moderns, and (c) of the novelties. Is such a report not of greater value to the general public?—Ed.

[74]

TID-BITS

AND AGAIN; IRIS W. R. DYKES-Wylie McL. Ayres.

Why is it that the word posthumous seems to confer some sort of mark of distinction or differentiation, persisting longer apparently than all other qualifications good, bad and otherwise?

Be it a book, an invention patented too late, a child, or as in this case of flower, the title posthumous bobs up insistently albeit it is often not quite correct and in this instance absolutely wrong.

It is not with any desire to correct this misnomer for the benefit of the general Iris loving public or even with the faintest hope of doing so that the following notes are placed before you, but rather that the members of our Iris Society who perchance read this may have the true history of one of the most beautiful and interesting of the recent Iris.

Had I not, just the other day, received a clipping from the London Times referring to Iris W. R. Dykes as posthumous you would have been spared this lengthy preamble as well as what is to follow, for it was more than a year ago that I tried to have the magazine Horticulture correct two statements, both in error, which they, of course, published by mistake.

Owing to the fact, perhaps, that my reply was months late, Horticulture declined to put in at that time any corrections, so I let it go at that.

The article in question was by my friend Dr. S. S. Berry, Horticulture, Aug. 15, 1929, and stated that Mr. Dykes had not before his death seen the Iris in flower, and a second statement in regard to its time of introduction which now that I have started also needs revision.

Statement No. 1. "It appeared among the seedlings of the late illustrious Secretary of the Royal Horticultural Society the season following his untimely death."

Dr. Berry told me that he had two sources of information to draw from and unfortunately in both instances he drew from the wrong source. Had he taken a glance at bulletin No. 3, pg. 19, British Iris Society he would have known that not only did Mr. Dykes see this Iris in his garden but that he declined the suggestion that it be called after him.

Far from being a posthumous Iris Mrs. Murrell wrote me that Mr. Dykes not only saw it but to quote "he cut the first spike in his excitement and carried it wrapped up in paper one morning to his room in the Old Horticultural Hall in Vincent Square to show it to everybody. Those who were there that day said that he was like a big schoolboy, bubbling over with joy and pride at producing such a wonderful yellow Iris. In fact they could not believe it was real until they touched it. The second spike was the one Mr. Wallace and I saw on June 9, 1925. As you know Mr. Dykes died the following December."

Statement No. 2. "With the second blooming in England the flowers came with the falls not pure yellow as in the first instance, but with a slight irregular streaking of purple."

It is owing to the fact that this statement might easily have been misconstrued or misinterpreted and some harm done thereby that I now take up its correction, for it was at this time and following its second flowering that so much notice and advertisement was given to it, especially in America as being the perfect yellow. Mrs. Murrell wrote me that during this second flowering, accompanied by Mr. Murrell and Mr. Pilkington, a visit was made to the new garden at Sutton Green and that this Iris was still a pure yellow. Also she said that it was at this time that Mr. Pilkington purchased the second half of the stock, the first half having been reserved the season before by the well known American dealer to whom Dr. Berry refers. Negotiation by the way for the first half were carried on through the Orpington Nurseries by Mr. Dykes and the well known dealer.

Now Mr. Pilkington is a hard judge of Irises, unusually hard, and it would stand to reason that if this Iris had shown any break in the falls when he was about to buy it, he would not have given for it the sum which I hear he did give. To quote Mrs. Murrell, "It was certainly a pure yellow the first two years of its blooming; namely at the John Innes Institute, 1925, and in 1926 when Mr. Pilkington, my husband and I saw it in full bloom in the garden at Sutton Green. Since that year some blooms have shown brown markings on the falls such as you saw last June here, although it had many blooms that were pure yellow. We can not help feeling that many people in the U. S. A. think we deliberately boosted it as being pure yellow, knowing perfectly well ourselves that it was not so. As you may be aware Mr. Dykes himself was an exceedingly

severe critic of his own seedlings, and I think he would have been just as dissappointed as we in the way W. R. Dykes has turned out, and although it is still a most arresting and unique Iris, in its way as wonderful as your (America's) William Mohr, in our eyes it can never regain the position it once held.''

It was unfortunate of course that so much was said about and so much expected of the long wished for perfect yellow. Perhaps it should have been watched for another year before presenting it to the hard world, though it is conceivable that this could have happened in the fourth year as well as in the third. Breaks like this are not unknown in certain Irises and during unusual seasons and now comes a report from Mr. Salbach that W. R. Dykes was a clear yellow with him this past season. There are many, many things we do not know about in the chemistry of floriculture. Some day the chemists or biochemists will tell us why these things occur. Let me add in conclusion that whether with the falls pure in color or marked with the small purplish spots Iris W. R. Dykes is in my opinion equally beautiful, a splendid and outstanding Iris.

IRIS COLORS-A Note.

At a glance when you enter an iris garden you may think that all the colors of the spectrum are represented in the iris blooms. That may be true in a way but just stop and attempt to select a corresponding color of some particular flower in Ridgeway's chart and see how far you get. As a matter of fact they are all blends, excepting possibly the whites, and this accounts for the lack of brilliancy and has a tendency toward pastel shades. The blends may be beautiful but they will never be as brilliant as a true color. Many iris breeders are working for a brilliant flower, as a poppy or tulip, which will come with a true color after the process of separating colors has been discovered. We have no bearded irises of a true color now, that I know of, although this season I saw a red, a true red self with almost the brilliancy of a tulip which was growing near. It was a shade deeper in color than the climbing rose, Paul's Scarlet. The yellow seem difficult. Pluie D'Or, the best that I know, has excellent texture but lacks size and brilliancy. The large, tall, brilliant, deep yellow has not yet arrived. Neither do we have a true blue. This may be the most difficult of all to More advancement seems to be made with the yellows and reds than with the blue.

The ultimate iris of any color will be a self, possibly blended. The bi-colors, plicatas, variegatas, etc. all have their place, but for stately beauty and classic elegance they must give way to the self. Of the new things now, how many will stand through the years and the avalanche of varieties being put out and still retain its superiority as Princess Beatrice has done, a blended self. It has not yet been surpassed.

I thoroughly agree with Mrs. Pattison when she condemns the show room as a place to judge irises. When you go to have your photograph taken you get all dolled up and look your best so that people may have a good opinion of you. Why subject an iris to the worst conditions possible when it is to be judged on its merits? Unless the judge is a very hardened sort of person he surely must have a feeling of guilt.

THE LAKE IRIS AND ITS DIFFERENTIATION FROM CRISTATA.

By Wm. H. Atwood, State Teachers College, Milwaukee, Wisc.

For several years I have been collecting and studying the rare and little known lake iris, *Iris lacustris*, and have been advised that iris growers might be glad to know more about this tiny relative of the better known *I. cristata*, which it so closely resembles that Gray's Manual of Botany, 7th edition, says it is "too near it"; but it is a distinct and non-variable species.

Lacustris is more hardy and multiplies faster than cristata. It thrives equally well in slightly acid or alkaline soil and can withstand extremes of sun, shade, water, drought, heat, or cold. It grows best in noon shade and stands as thick as lawn grass. Because its stems grow on the surface if the soil is hard, it should be covered with moss or straw each fall, and inspected in the spring to see that its rhizomes are covered. In its native haunts it grows in moss.

This iris is a choice rock garden plant and is entirely free from insect pests or diseases, but is crowded out by tall grass which seems to be its only enemy. It was formerly thought that the moist air of a lake shore was necessary for its propagation, but it has been grown far from water in as great luxuriance as on its native beaches. I believe that it will thrive anywhere in the United States.

The best known stations where *lacustris* may be found are the following: Fish Creek, Ephrium, Bailey's Harbor, St. Martin's Island, and Washington Island, Wisconsin; Presque Isle, Mackinae

City, Bois Blanch Island, and Drummonds Island, Michigan; and Bruce Peninsula and Southampton, Ontario.

The chief distinction between *lacustris* and *cristata* is the habitat. *Lacustris* is found wild only on a few sandy ridges (old beach lines) along the shores of Lakes Superior, Huron and Michigan, whereas *cristata* grows in the Eastern States from Pennsylvania southward. It is because of the geographical locations that *cristata* blooms in April–May whilst *lacustris* blooms in May–June, but when grown together they bloom at about the same time. *Lacustris* has always bloomed for me again in the fall. I usually have flowers on *lacustris* from about October first until frost. Fall blooming is not common to it, however, where it grows on its native beaches.

Lacustris is only about half as large as cristata in flower, leaf and rhizome. The flowers of cristata are about the same diameter as a silver dollar, and lacustris is about the size of a half dollar. The corolla tube of cristata is very long and slender and extends well above the foliage, whereas the tube of lacustris is yellowish and very short and does not extend above the foliage. The petals of lacustris are relatively shorter and broader than those of cristata, causing it to look more like a bearded iris. Cristata has the fragrance of the wild crab-apple, but lacustris is nearly odorless. In color the flower of lacustris is a deeper blue.

The foliage of *lacustris* spreads out on the ground and is much less stiff and erect than is that of *cristata*. Finally the seed capsule of *cristata* is sharply triangular in cross-section differing from *lacustris* which is more ovoid.

IRIS CHROMOSOMES

J. C. Nicholls

Ever since we began to raise bearded Iris seedlings eight years ago, we have hoped to learn and publish something bearing on Iris heredities that would help in the work. That hope was faint because of the complexity of the material, secrecy of many past and present hybridizers, lack of cytological data and our limited abilities.

From a study of 11,000 seedlings from 1400 recorded crosses, it has been easy to distinguish the effects of many individual kinds when crossed; we have never offered any of these data for publi-

cation though an exchange of such information would assist all of us. Secrecy has no place in our work and we freely give available information to any who are interested—and to many who are not.

Though still unable to offer anything for which we may claim personal credit, we are presenting below some information obtained from others that is of interest to Iris hybridizers.

In our last four crops of bearded Iris seedlings, a number have appeared to indicate dominance (or equality) of white over yellow and color and of yellow over color. Many of these could not be accounted for by white or yellow constituents in the colored nor was simple dominance thought a safe conclusion.

Knowing only the diploid chromosome numbers of Longley and little of genetics, we suspected that there must be tetraploid Irises—under the misapprehension that tetraploidy could cause the results. We now know from Dr. Randolph that it could not and that the anomalies are probably due to the presence of a "dominant inhibitor factor" in the white or yellow mates. However, our erroneous guess led to investigation which yielded the data given below. Already identified among the Tall Bearded Irises are a few triploids, many tetraploids and one pentaploid. It is possible that the 40 chromosome Dwarf Irises were once tetraploids and, either are still, or that they retain some of the characteristics.

In the spring of 1932 we took this matter to Dr. L. F. Randolph, an experienced cytologist of Cornell University. He was good enough to make root tip chromosome determinations on about twenty-five named and seedling varieties selected by us as possibly pertinent. While doing this, he located some Iris chromosome numbers from Germany and a most informative lot made by Simonet of the Vilmorin Co.

We have collected the chromosome numbers from all these sources into a table arranged by racial group. The table, showing name of operator and year, would require so much space that it has been condensed for use here.

The plain numbers are the somatic chromosome counts or the values of 2n. Where available from a study of the reduction division, the bivalents are indicated by double quotation marks and the monovalents by the single. The assortments at division into bivalents and monovalents often vary for hybrids with unbalanced chromosome equipment; those given are the usual. It may be added that some kinds exhibit trivalents or even tetravalents.

DWARF BEARDED

Azurea 36 (9"-18'). The following have 40 with, usually, the normal 20 bivalents for five of them which have been examined: chamaeiris Bertolini, Coerulea, Graminea, mandschurica Meiss, olbiensis, reichenbachii-orange (Burchfield), Rupert and virescens.

Intermediate Bearded

Dauphin, Diamond, Dorothea, Ingeborg, Ivorine and Odin, 44 (16"-12'). Crysoro, florentina Ker-Gawl and Maygold, 45. Erebe, germanica Coerulea, ger. Abrial, ger. du Chat, Kharput and kochii, 44. From Longley's figures, Atropurpurea, Purple Prince and Purple King apparently have about 44.

TALL BEARDED

Diploids with 24 chromosomes: alberti Regel, Amabilis, Amoena, Calypso, Caprice, Count de St. Claire, Delicata, Flavescens, Flav. Baxteri, Flav. Canary Bird, Florentina L. (a simple pallida), Florentina pallida, germanica, Gleam, Her Majesty, Iris King, Jacquesiana, Khedive, King Edward VII, La Tendresse, Leonidas, L'Esperance, Lord Mayor, lurida Soland (Redouteana), Mme. Chereau, Mme. Pacquitte, Mandraliscae, Mrs. E. A. Barr, Mrs. G. Darwin, Mrs. H. Darwin, Morphee, neglecta Horne (variegata × sambucina?), pallida L., pallida Dalmatica, Princess Beatrice, Penelope, Plicata Lamarck, Rembrandt, Rubyd, sambucina L., samb. Mephistopheles, samb. Squalens L., Samson, Sir W. Scott, Unique, variegata L., and William Wallace.

TRIPLOIDS with 36: Ballerine, Isoline and kashmiriana. Hypotriploid with 35, Allies.

Tetraploids with 48: Alcazar, cypriana, macrantha (Amas?) Shasta, Tamerlan, trojana Koerner and Valor. Hypotetraploid with 47, Souv. de Mme. Gaudichau. Hypertetraploids: Alhambra 50, Ambassadeur 50, Cardinal 49, Desert Gold 50, Dominion 50, Kashmir White 51, L. A. Williamson 50, Miss Willmott 51 and Shelford Chieftain 49. Our numbered seedlings: 7246 Miss Willmott × Cardinal 52, 7402 Kashmir White × Dominion 51, 11428 Seminole × Shasta 49 and 3558 Ambassadeur × Rubyd 50. Number 3558 is a sister of Valor 48.

Pentaploid: Magnifica 62 by Simonet, 60 by Randolph.

COMMENT

DWARF BEARDED. Azurea has 36 chromosomes with a good many monovalents and is probably a wild hybrid of Iris pumila [81]

Linnaeus. Our few crosses with it have failed but Mr. Hans Sass has reported success.

The other Dwarfs with 40 chromosomes appear to seed freely and to have potent pollen when crossed within their own group. Our few crosses of them with the Tall Bearded have all been with tetraploids and have given a good percentage of success; this may not hold generally.

One cross of stolonifera × D. B. Graminea gave three seed and there is one plant that ought to bloom in 1933. It is understood that others are obtaining many seedlings from crossing the Dwarf Bearded with the regelias and regelio-cyclus hybrids. In this connection, one plant from pogo-cyclus Lady Lilford × T. B. Alcazar bloomed abundantly in our garden in 1932; it was intermediate between its parents in every characteristic and, though nice, is hardly worth offering. Out of curiosity, we crossed Sir Trevor Lawrence by Santa Barbara and now have two seed in the ground.

Intermediate Bearded. As brought out by Simonet, all so far investigated have 44 or 45 chromosomes and must have come from crossing 40 chromosome Dwarfs with 48 chromosome Tall Bearded; this applies to some of the collected kinds also. Being hybrids, they have an unbalanced chromosome mechanism and, as a rule, seed sparingly or not at all, either by pollen or egg. Istria and lurida minor probably come under this and both have been sterile for us.

It is noted that none of the Intermediates so far examined have numbers corresponding to the cross of a 40 chromosome Dwarf with a 24 chromosome Tall Bearded. With the above numbers available, perhaps the Sass brothers can throw some light on whether there is difficulty in getting results from such combinations; we may check it in 1933.

Tall Bearded. Our kashmiriana recently came from a good source, is probably true, has 36 chromosomes and is more apt to be a collected wild hybrid than a species. Simonet reports 51 chromosomes for it, the same number as determined here for "Kashmiriana Shelford Variety," another name for Miss Willmott—unfortunately.

There were no records of the parentages of Kashmir White, Theseus and Miss Willmott but we have been reliably informed that they could have come from cypriana only. Neither kashmiriana nor other kind was in the neighborhood to account for them. When Simonet's investigations disclosed the existence of triploids, tetraploids and a pentaploid among the Tall Bearded Irises, he noted that, as already known for plants of some other genera, the number of chromosomes influences the size of the flower and other parts of the plant. He says:

"The number of chromosomes is in direct proportion to the gigantism of the flower of the plant. The variety Magnifica is, indeed, the horticultural variety having the largest blooms. Let us add that, on the whole, all the triploid, tetraploid and pentaploid hybrids are taller plants of which the leaves and flowers are more greatly developed than in the largest diploid varieties. The increase in size is the more greatly accentuated as the number of the chromosomes is the more greatly increased. Observations made on the flower parts and on the leaves of some varieties have shown us that there is the same direct relation between the dimensions of the cells and the numerical value of the chromosomes. Thus, in the Iris germanica group, the gigantism has not resulted from a greater increase in the number of the cells but from all the cells themselves being much larger."

It must be kept in mind that this relation holds only within a closely related group, in this case, the Tall Bearded Iris only. Manifestly, the 40 chromosome Dwarfs and the 44 chromosome Intermediates are, in this respect, not comparable with the Tall Bearded.

Too great an increase in the number of chromosomes may hinder the development of some plants. For example, Dr. Randolph has found that octoploid corn plants are usually very dwarf, while the tetraploids, as a rule, follow the principle outlined above.

(To be continued)

ON FLOWER SHOWS

Dr. Frederic M. Hanes

Mrs. Patterson thinks that iris shows, as they are conducted at present, are best described as stalks of iris stuck in milk bottles and placed on shelves. Mr. Shull, in "Rainbow Fragments," condemns indoor iris displays in language less piquant, but equally disapproving. And yet, the educational value of such shows is very great. My own enthusiasm for iris dates from a day, now long distant, when I saw in a flower show a vase containing a half-dozen superb stalks of Pallida dalmatica. I wrote the queer sounding words in my note-book, thinking I had made a discovery. I had. Columbus sighting San Salvador did not open vistas of a new world for himself more surely than the discovery of P. dalmatica did for me!

No, the fault is not with the iris show, but with the manner in which iris are shown. The iris, more than most flowers, suffers by removal from its natural surroundings. The answer, then, is to display them in as near their natural [83]

surroundings as one can. This is not so difficult to do. Several years ago, Mr. B. B. Walker and I, being highly disgusted with the practice of sticking iris in milk-bottles, filled a couple of dozen pots with clumps of iris plants, from which the bloom stalks had been removed. These pots were of various colors,—pale blues, greens and browns. Having placed these in the iris show-room, we cut the flower stalks which we wished to display and (with the help of a sharpened wooden peg) stuck the cut stalks into the dirt around the clumps of rhizomes. With a little practice we learned to arrange the stalks so that only the most careful inspection would reveal the deception. Each pot looked like a blooming clump of iris, and even seasoned iris-growers asked us if we were not afraid of ruining our rarer plants by removing them in clumps from the garden!

This simple method of displaying iris is capable of many variations. Individual ingenuity will suggest these. We can attest to the fact that it made an instantaneous appeal to the flower-show visitors. Let me add, as a suggestion for commercial growers, that it greatly stimulated Mr. Walkers' iris sales. If

I had an iris to sell, I would never display it any other way.

The trouble involved is not very great. One selects the plants one wishes to use, naturally choosing high-growing, medium and low-growing ones, sets the rhizomes in rows close together, and when the next blooming season arrives fine one-year clumps are available for transplanting into pots or larger containers. Plants so treated keep in excellent fresh condition for two weeks or more. They should not be given much water. Flower stalks stuck into the moist earth around the rhizomes actually unfold their blooms better than they do when placed in water. Let each iris lover try this method in his own home, placing his pots on low tables or (better still) on the floor, changing his display daily, if he chooses, by the simple procedure of removing the old stalks and replacing them with fresh ones. If he does not become a convert it will be because he owns stock in a milk-bottle factory!

Let's not abandon iris-shows. Let's make the iris look natural, and if the display room needs artificial light, try using the new daylight type of in-

candescent bulbs, which are now available at no great price.

IRIS COLD STORAGE

For several years I have kept a record of the date the first iris flower appeared, keeping a record of many varieties. These blooming dates vary with the season but the order of the blooming of the different varieties is the same from year to year. With show dates fixed and iris blooming time variable, cool weather retarding and warm weather rushing them into bloom. Often choice

exhibition stalks reach maturity several days before the show.

It was with the purpose of meeting this condition in some degree that I have been, through the kindness of the Beatrice Creamery of Lincoln, carrying on experiments in cold storage of iris bloom. For the experiment four storage rooms were used. These were kept at a constant temperature of 42, 38, 35 and 32, respectively. Four vases of buds from the same iris variety were used. The buds were in the same state of advancement and would normally have opened in twenty-four hours. The buds were not wrapped. The vases were taken out and photographed at the end of 6 days, 12 days and 18 days. The results were as follows:

	6 days	$12 \mathrm{\ days}$	$18 \mathrm{\ days}$
Temperature 42	Flowers open Half open Slightly open No change	Fowers withered Entirely open Beginning to open No change	Flower withered Partly open Slight swelling

On the 18th day the flowers that had been under a temperature of 32 opened nicely within six hours in a warm room. Some conclusions that may be drawn are as follows:

1.-Cold storage does not arrest development; it only retards it.

2.—No temperature can arbitrarily be said to be the right temperature to be used in all cases.

3.—If the buds are to be kept under 6 days, store in a temperature of 42. 4.—If they are to be kept from 6 to 12 days, store in a temperature of 35.

5.—If they are to be kept longer than 12 days, store in a temperature of near 32. It is doubtful as to the success of keeping buds in good shape longer than 18 days.

Other temperatures could have been used, but the results would have been

predictable from the results I obtained.

During 1933 experiments will be continued as to the effect of wrapping the buds and also to determine the ability of different varieties to withstand the effects of cold storage.

G. H. GRAHAM.

THE VOCATIONAL GUIDE

"And, my dear Sir, when the BULLETIN gets to the point where it cannot do more than put out autobiographies of me and others of the sort, it has ended its usefulness and the money might as well be saved and you can put out the white flag." If other breeders feel as strongly the editor fears this new department will collapse into real vacuity. We had planned to concentrate on the breeders whose varieties received awards in 1932 but lack of information brought us back to beginning with our officers of whom the editor knows something. We are not attempting eulogies or a Social Register.

John Wister, Harvard, '09, followed by special work in the School of Landscape Architecture, a scion of an old Philadelphia family possessed of many connections in other cities, President of the A. I. S. since its organization in 1920, Secretary of the American Rose Society, 1921–23, of the Pennsylvania Horticultural Society, 1927 to date, Director of the Botanical Garden at Swarthmore, author 'Bulbs for American Gardens,'' ''The Iris' and numerous articles, a practising landscape architect and a man who seems to enjoy belonging to convenient clubs and especially to horticultural organizations that are not socially inclined. 'Jack' has a passion for collecting—names in check lists, bulbs, shrubs, and what-nots out-of-doors. I suspect he is a would-be farmer at heart and would thrill to nature if his duties permitted (he possesses the socalled New England conscience despite appearances). The modest recipient of the Foster Memorial Plaque for iris fame.

Richardson Wright, our penurious Treasurer since 1928, Editor of House and Garden, author "Forgotten Ladies," "Hawkers and Walkers," "The Gardener's Bedbook," "Hardy Flowers," etc., an acknowledged success in this world, a man with theological training, and (I think), a Trustee of Trinity College as well as a member of the Corporation of Yale University, President of the Rose Society. His appearance that of a man-about-town with many social obligations—his secret vice an inquiring turn of mind that leads to research and a keen observance of people and things. As an entertainer "Dick" "needs no bush."

John B. Wallace, Jr., our Secretary (of sorts) since 1927, the first of our group with wife AND family, one who sells insurance, enjoys his iris-hobby with a vim, and, I think, attends every athletic contest at his alma mater Yale. 'Jack and Julie' entertain royally and what other honors they may possess we need not know.

Robert S. Sturtevant, Harvard 1912, School of Landscape Architecture, 1916, Sec'y, 1920–1927, and still editor, ex-Director of the Lowthorpe and Simmons College Schools of Landscape Architecture, still a teacher or lecturer of

^{*} The editor hopes Mr. Wright enjoys the fruits of his advice.

anything in the landscape line that presents itself (under present conditions), as frequent a contributor as possible to garden papers, a practitioner and consultant on occasion; married and has just adopted a second small boy (hence experienced in household tasks), his chief claim to distinction a half-brother to Grace Sturtevant.

To our lack of unity as a group you may lay many A. I. S. mistakes or good deeds-with each going his own way progress may be obstructed or advanced. Our common bond is habit and a completely bored appreciation of new

irises. Incidentally we are all about of an age.

NEWS AND NOTICES

EXHIBITIONS (to Feb. 16)

Boston, Mass.—Mrs. Thomas Nesmith, 166 Fairmount Ave. Lowell, Mass.

Chula Vista, Calif.—J. A. Munroe, 730 4th Ave. Columbus, Ohio—G. Syfert, 1541 Franklin Park South.

Freeport, Ill.—Mrs. W. L. Karcher, 1101 W. Stephenson St. ANNUAL MEETING, June, 3-4.

Lincoln, Nebraska.

San Antonio, Texas; Apr. 8-9-G. M. Allen, 1915 West Magnolia Ave.

San Bernardino, Calif. Mrs. L. M. Lothrop, 820 D. St.

St. Joseph, Mo.—Carl Schirmer, 6106 King Hill Ave.

BULLETINS

JULY-Intermediates, old and new. The work of Caparne, Goos & Koenemann, of the Sass Brothers and others; low-growing bearded, beardless, pogocyclus as available for garden use; autumn bloomers and, for the South, ever-blooming varieties and their use for effect.—Mrs. J. Edgar Hires, Associate Editor, Ardmore, Pa.

OCTOBER—1933 Ratings (all judges are requested to comment on methods of judging). A Group of Species, Illustrated; Regional Recommendations and seasonable gossip. The departments will be continued in each issue.—Sherman R. Duffy, Associate Editor, 326 West Madison St., Chicago, Ill.

ITEMS:

Mr. H. H. Groff is the first recipient of an Award of Merit from the Ontario Horticultural Association for his valuable contributions. Some years ago he received the Carter Medal from the Canadian Horticultural Council. As a breeder of gladiolus he is widely known and now, at the age of eighty, he is turning to the iris.

DALLAS IRIS SOCIETY organized by Mrs. Murrell L. Bucher three years ago again plans an iris show and study meetings under the leadership of Mrs. Gross R. Scruggs.

FRENCH AWARDS 1932-To Cayeux et Cie., Dykes Medal and C. M. to Eclador; C. M., to Argos, Flossie, Idolle, Nene Penitent, Rose-Marie, Theodora, Directeur Pinelle, Presage, and Vision. To Vilmorin et Cie., Coryphee, Timothee, and Lyncee.

Notes on Bearded Irises by E. P. McKinney in The Flower Grower, Feb. 20, No. 2 and 3, February, 1933 (reprinted from New Jersey Gardens) is excellent reading.

M. E. Douglas, Regional Vice-President for the States of New Jersey, Pennsylvania, and Delaware is conducting an interesting campaign, for publicity and service to members. (Results to be reported.)

NOVELTIES

You are cordially invited to visit our gardens and see the best of the Novelties, all the good Standard varieties, Dwarfs, and Intermediates. Also, one of the finest collections of Beardless Iris, including many rare and beautiful Species.

NICHOLLS INTRODUCTIONS

Honorable Mention, American Iris Society Crysoro Deepest, purest, finest, yellow, \$7.50 Red Robe Giant, velvety, deep rich ruby, \$25.00 Valor Taller, darker, finer Sir Michael, \$15.00

The other Nicholls Introductions are almost as outstanding, and are now generally accepted as fine irises of unusual colors.

April Delivery on Beardless

Place Order Now

Wonderful Louisiana Species, Beardless Hybrids, Siberians, Crested Dwarfs, Spurias Iris Lacustris, \$1.00

The finest of stock-Free from disease-True to name

Rare Species Wanted on Exchange

ROYAL IRIS GARDENS

J. C. Nicholls, Jr.

Camillus, N. Y.

THE IRIS SOCIETY

(of England)

Application for membership in The Iris Society may be sent direct to the American Iris Society office. Make check for dues (\$2.85) payable to American Iris Society: send it to Science Press PRINTING Co., Lime & Green Streets, Lancaster, Pa. Mark it plainly "For dues for The Iris Society (of England)" and print your name and address.

IRIS-PEONIES

Our 1933 IRIS Catalogue lists over 500 of the best var. in all types. A list of fine peonies is also issued. Accurate descriptions and classification of the various types are given. You will need these lists for reference.

Large Roots at Low Prices.
KENWOOD IRIS GARDENS
R. R. 10, Box 230F. Cincinnati, Ohio



SELECTED VARIETIES

New and Old Bearded and Beardless

THE IRIS GARDEN Overland Park, Kans.

IRISES

KATISHA, STANWIX— INTRODUCTIONS FOR 1933 Fairylea (1932), Guyasuta (1931), Edgewood, Elsinore, Lodestar, Serenade and other varieties.

> Descriptive list on request. C. H. HALL, Ingomar, Pa.

THE AMERICAN HORTICULTURAL SOCIETY

Invites to membership all persons who are seriously interested in horticulture. For its members it publishes, an illustrated quarterly, The National Horticultural Magazine in which will be found a more diverse and interesting collection of horticultural material than in any other American garden publication. It is written by and for its members. Among its regular features are articles on: Conifers, California plants, American natives, iris species, narcissus, succulents, lilies, unusual shrubs and trees, rock plants, ivies, and many more. Particular features for 1933 will include a horticultural review of fuchsias and preliminary reports on tulip species. Membership is three dollars the year. Checks should be made to the Society and sent to Mr. C. C. Thomas, 211 Spruce Street, Takoma Park, Washington, D. C.

Rare Irises—1200 Varieties

FROM THE SMALLEST-TO THE TALLEST

Early, mid-season, late.—Iris for every purpose. Pogocylus, Regelias, Oncocyclus, Siberians, Japanese, Spurias, Evansias or Crested Iris. Write for Catalogue.

ROBERT WAYMAN
Box E, Bayside, Long Island, N. Y.

W. R. Dykes

apply

H. CHADBURN (A. I. S.) Middleton, Saxmundham, England \$4.50 Cash with order

ALTA CALIFORNIA

"To the yellows as Purissima to the whites"

CARL SALBACH

646 Woodmont Ave., Berkeley, Calif.

One of the World's Largest Collections from which to select

New, Rare and Good Old

IRISES

1800 varieties

Tall, Intermediate, Dwarf, Dutch, Spanish, Japanese and Siberian.

PEONIES

1850 varieties

Double, Single and Japanese varieties.

Wholesale and Retail Price Lists.

A special discount of 10 per cent from retail prices will be allowed on all orders received and paid for before July 1st.

> Treholme Gardens Earl Wooddell Sheets, 1831 Lamont St., N. W. Washington, D. C.

The Glen Road Iris Gardens

offer many Novelties as well as a critical selection of

Standard Varieties

A list of your wants will receive prompt

GRACE STURTEVANT Wellesley Farms, Mass.

Wassenberg Quality Irises Wassenberg Quality Peonies One of America's Finest and Largest Plantings. 1250 Varieties. Quality Plants, Vigorous Young Stock with Prices Most Reasonable. Catalog Free.

C. F. WASSENBERG. Van Wert, Ohio

IRIS IRIS IRIS

Send for my catalog listing over 200 modern irises, including best of recent novelties. Six New SUNNYSIDE introductions for 1933 at moderate prices. Fine Bargain list.

SUNNYSIDE GARDENS,

Natick, Mass.

J. MARION SHULL

Artist-Plant Breeder, Specializing in Iris

207 Raymond St., Chevy Chase, Md.

Productions in clude Coppersmith, Dune Sprite, Elaine, Julia Marlowe, L'Aiglon, Moon Magic, Morning Splen-dor, Nocturne, Phosphor, Sequoiah, dor, Nocturne, Phosphor, Sequoian, Tropic Seas. Author, "Rainbow Fragments, A Gar-den Book of the Iris." Price \$3.50.

3 NEW IRIS

Castalia (blue), Hermene (pink) and Margaret Appe (torre Anne (terra red) — 3 new garet cotta red) — 3 ne 1933 introductions -\$2.00 each. Set of 3 for \$5.00. Send for Williamson's new Iris Catalog. Longfield Iris Farm 429 Market St. Bluffton, Ind.

NEW FALL BLOOMING IRIS

Eleanor Roosevelt, Franklin Roosevelt, Frost Queen, Autumn King Junior, October Opera, and many others. Sass Irises our specialty. Write for catalog.

Hill Iris and Peony Farm

Lafontaine

Kansas

SPECIAL NOTICE

Until the present issue of the New Peony Manual is exhausted the Directors of the American Peony Society have reduced the price to \$3.15, delivered. This is a reduction of 50% from former price and was prompted to meet present conditions and make it possible for every garden lover to obtain a copy, which at present price is below cost of production.

This manual is the greatest book of its kind and will prove of great value to any peony admirer. Membership in the American Peony Society, four splendid bulletins, together with the peony manual for \$6.00.

Act quick if you desire a manual as at this low price we expect to soon dispose of the balance of books on hand. Address all communications and remittances to.

> W. F. Christman, Secretary, American Peony Society, Northbrook, Ill.

INGSLEY'S GARDENS

1933 Catalogue "GLADIOLUS OF DIS-TINCTION' AND CHOICE IRIS Illustrated in colors. Yours for the asking W. H. KINGSLEY, Box 382 Hayward, California

FREE-Sample Copy Flower Grower



A magazine specially edited for gardening enthusiasts. Intensely practical, stimulating, helpful. Unlike any other. Paste this adv. on postal or enclose in envelope with name and address; we'll mail sample copy.

FLOWER GROWER

126 No. Broadway, Albany, N. Y.

SUBSCRIBE FOR THE AMERICAN IRIS SOCIETY BULLETIN

The American Rose Society

Invites

Members of the American Iris Society who also enjoy roses to unite with it in improving and furthering the enjoyment of roses

furthering the enjoyment of roses throughout the world.

The American Rose Annual, sent to each member every year, describes all the new roses and is packed with information and inspiration for rose growers.

The American Rose Quarterly deals with current exhibitions, meetings, rose pilgrimages, roster of members, etc.

"What Every Rose Grower Should Know," the Society's book of instructions for rose-growing, is sent to each member.

The Committee of Consulting Rosarians will give free advice on all rose subjects.

Dues \$3.50 per year

Dues \$3.50 per year Three years for \$10.00

Address

Secretary, American Rose Society, West Grove, Pa.

The American Delphinium Society

A group of enthusiasts have banded themselves together to work for the betterment of delphinium and to introduce the flower-loving public to the magic spell of the modern delphinium. The Bulletin of the Society, published three times a year and containing contributions by European and American specialists, is sent free to each member. In addition, the officers of the Society are ready and eager to help each member solve his particular problems.

> LEON H. LEONIAN, Secretary, University of West Virginia, Morgantown, W. Va.

THE CREAM OF THE CROP—We Have Them

OUR NEW IRIS CATALOG will list the best of the new as well as the good standard varieties. President Pilkington, Golden Flare, Gudrun, Jean Cayeux, Red Dominion, Shirvan, Depute Nomblot and Vert Galant are just a few that will be fully described in our new catalog along with good illustrations both in color and half-tones. If you do not receive it, a copy will be gladly sent on request.

Minnesota Grown

Hardiness Unquestionable

RIVERVIEW GARDENS

909 Winslow Ave.,

A. J. Wilkus & Sons.

St. Paul, Minn.

Farr Memorial Library

Members are reminded that any Garden Club or Horticultural Society has the right to borrow from the American Iris Society the Farr Memorial Library. This library was endowed as a memorial to Mr. Farr and can be had without any charge except actual express charges both ways.

Full details about the library are given in Bulletin No. 30 but briefly it may be stated that all known books on Iris are included as well as all past Bulletins of the American Iris Society and of The English Iris Society.

Applications should be made well in advance as the library has been in great demand and has been used by over forty organizations during the past few years.

Apply to Nearest Office

East: The Horticultural Society of New York, 598 Madison Ave-

nue, New York City.

Mrs. Katherine H. Leigh, Missouri Botanical Garden, St. Midwest: Louis, Mo.

West: Sydney B. Mitchell, School of Librarianship, Berkeley,

California.



IRIS

Do you know them?

How does a particular Iris rate compared to others? A catalog that uniquely classifies each Iris in its proper place in reference to other Iris, is

An Iris Lover's Catalog

Nothing confusing or misleading

A worthwhile treatise with beautiful color illustrations for the Iris lover to study and enjoy. Copy on request.

Schreiner's Iris Gardens

Box 103B, Riverview Sta., St. Paul, Minn.

CUPRO-JABONITE

Prevents Iris root rot - Delphinium "Blacks" Prevents

basal rot and fungus diseases. Dust all roots, bulbs, etc. before planting, shipping, and storing.

A boon to Iris Growers.

Safe, economical & efficient-Application is convenient, consisting of sprinkling (or coating) the affected rhizomes-

1 lb. Sprinkler cans—\$1.00 post paid— Special quantity prices to Nurseries and seed dealers.

If your dealer cannot supply you write-

Gordon Chemical Company, Inc. 06 W. 9 Kansas City, Mo. 1406 W. 9

ANNUAL MEETING

FREEPORT, ILL.

June 3, 1933

COMMITTEES

Co-Chairmen Mrs. W. L. Karcher, 1011 West Stephenson St. Mrs. C. A. Sherman, 718 East Pleasant St. Dinner, Hotel and Reservations.—Mrs. L. C. Younglove, 43 North Wise St. Publicity.—Mrs. C. N. Meyer, 850 West Lincoln Boulevard.

ARRANGEMENTS

FLOWER SHOW—June 3 and 4; Masonic Temple, Cor. Walnut and Stephenson Sts. Judging 11 A. M. to 1 P. M., Open 1:30 Saturday, 10 A.M. Sunday.

HEADQUARTERS-Hotel Freeport. Annual Meeting, June 3, 4 P. M.

BANQUET—Masonic Temple Tea Room, 7 P. M., June 3rd. Tickets, \$1.00. Reservations must be made with the Chairman before June 2.

INFORMATION—The Century of Progress Exposition in Chicago opens June 1st.

Visitors planning to visit the gardens of Lincoln and Omaha (the Sass Brothers) should plan to do this in advance of the meeting as their season is earlier.

Freeport offers the lovely gardens of Mrs. Pattison, Mrs. Karcher, Mrs. Shaible, and others for visiting and neither Rockford with Mr. Boehland's display nor Belvidere with that of Mrs. Fellows is beyond reach.

There is good train service from Chicago on the Chicago and Northwestern or the Illinois Central R. R. We are assured of good rates at that time.

TO ALL MEMBERS

Each and every member of the Society is requested to send in his or her choice of the 25 most satisfactory varieties in the garden and in addition to recommend 5 other varieties with which they have had less experience but which promise to be dependable.

Our object is to secure lists of dependable and popular varieties for each climatic section—lists sufficiently small in number of interest new

members.

Your list should be sent before July 1st to one of the following compilers—(select that one with growing conditions similar to your own):

Prof. John E. Hill, 86 Taber St., Providence, R. I. (Eastern district.) C. P. Connell, Vanderbilt University Hospital, Nashville, Tenn. (Southern.) Sherman R. Duffy, 326 West Madison St., Chicago, Ill. (North Central.) Mrs. Lena M. Lothrop, 820 D St., San Bernardino, Calif. (Pacific.)

BULLETIN

OF THE

American Iris Society

July, 1933

LOWLY IRISES

No. 48

In Memoriam, EDWARD BRUCE WILLIAMSON.

Editor, R. S. STURTEVANT.
Associate Editor, THURA TRUAX HIRES

CONTENTS

E. B. Williamson and his Irises	1
A Bit of Personal Iris History, E. B. Williamson	2
Williamson Irises, Ethel Anson S. Peckham	8
Colour Grouping for Garden Irises, Louisa F. Pesel	14
Landscape Picture with Iris, Alfred C. Kinsey	20
Here and There Among the Lowly of the Tribe, Ella Porter McKinney	25
Iris Overture, Thura Truax Hires	33
Irises that Bloom in the Fall, Clint McDade	37
Intermediates, Sherman R. Duffy	42
Garden Pictures 7, Irises in Combination, R. S. Sturtevant, M.L.A	45
Vocational Guide—With the Iristatics, Richardson Wright	48
The Family Tree-Crossing Pumila Hybrids with Regelia-Cyclus Hybrids,	
Jacob Sass; Breeding Notes, H. P. Sass	50
Iris Chromosomes, cont., J. C. Nicholls	56
In Praise of the Judges, J. C. Nicholls, Jr.	60
On Becoming a Judge of Iris, Dr. F. M. Hanes	62
Our Scoring System, S. R. Duffy	64
Comments on Ratings, Ralph G. Van Name	67
An Iris Seedling come to Judgment	68
1933 Annual Meeting, S. R. Duffy	71
	72
Varietal Notes	74
Ask Me Another	7 8
Tid-bits 31	79
Notices	84

Published Quarterly by

SCIENCE PRESS PRINTING COMPANY. LIME & GREEN STS., LANCASTER, PA. Entered as second-class matter March 8, 1927, at the Post Office at Lancaster, Pa., under the Act of March 3, 1879.

OFFICERS 1933

Directors:

Term expiring 1933:

Dr. H. H. Everett

J. B. Wallace, Jr.

Sherman R. Duffy

Richardson Wright A. P. Saunders

Term expiring 1934:

Mrs. W. H. Peckham

R. S. Sturtevant

Term expiring 1935:

Mrs. J. Edgar Hires

B. Y. Morrison

F. B. Mead

Jacob Sass

John C. Wister

President-John C. Wister, Wister St. and Clarkson Avenue, Germantown, Philadelphia, Pa.

Vice-President-Dr. H. H. Everett, 1104 Sharp Bldg., Lincoln, Nebr.

Secretary-J. B. Wallace, Jr., 129 Church St., New Haven, Conn.

Treasurer—Richardson Wright, House & Garden, Graybar Bldg., New York City. Regional Vice-Presidents-

- 1. Mrs. Thomas Nesmith, 166 Fairmount St., Lowell, Mass.
- 2. Col. J. C. Nicholls, 114 Overlook Rd., Ithaca, N. Y.
- 3. M. E. Douglas, Rugby Place, Woodbury, N. J.
- 4. E. W. Sheets, 1831 Lamont St., N. W., Washington, D. C.
- 5. Mrs. James R. Bachman, 2646 Alston Drive, Atlanta, Ga.
- 6. W. A. Payne, Box 685, Terre Haute, Ind.
- 7. C. P. Connell, 2001 Grand Ave., Nashville, Tenn.
- 8. Robert Schreiner, R. 1, Riverview Station, St. Paul, Minn.
- 9. Euclid Snow, R. F. D. 2, Hinsdale, Ill.
- 10. Mrs. Gross R. Scruggs, 3715 Turtle Creek Blvd., Dallas, Texas.
- 11. David C. Petrie, R. F. D. 2, Boise, Idaho.
- 12. Dr. P. A. Loomis, Colorado Springs, Colo.
- 13. R. M. Cooley, Silverton, Oregon.
- 14. Prof. E. O. Essig, University of California, Berkeley, Calif.
- 15. William Miles, Ingersoll, Ontario, Canada.

Chairmen of Committees:

Scientific-Dr. A. E. Waller, 233 So. 17th St., Columbus, Ohio.

Election-Dr. C. Stuart Gager, Brooklyn Botanic Garden, Brooklyn, N. Y.

Membership and Publicity-Dr. H. H. Everett, 1104 Sharp Bldg., Lincoln, Neb.

Registration-C. E. F. Gersdorff, 1825 No. Capitol St., Washington, D. C.

Test Garden-Mrs. W. H. Peckham, New Rochelle, N. Y.

Display Garden-Mrs. Brewster B. Hoornbeek, Elgin, Ill.

Exhibition-Mrs. W. L. Karcher, 1011 W. Stephenson St., Freeport, Ill.

Bibliography-Mrs. W. H. Peckham.

Awards-Dr. H. H. Everett.

Editor-R. S. Sturtevant, Groton, Mass.

Editorial Board

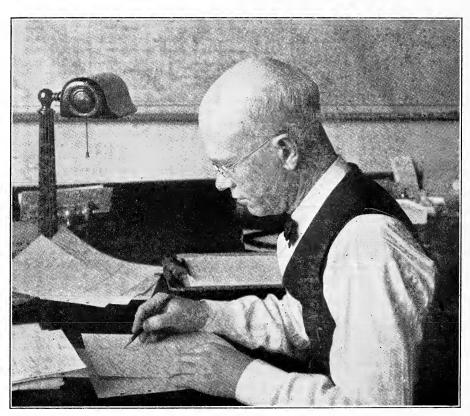
S. R. Duffy

B. Y. Morrison

Mrs. J. E. Hires

R. S. Sturtevant

LANTERN SLIDES-Rental Fee (to members) \$10.00. Apply to Mrs. K. H. Leigh, Mo. Botanical Garden, St. Louis, Mo. REGISTRATION-Closing Dates advanced to August 1st.



Edward Bruce Williamson at Work.

THE AMERICAN IRIS SOCIETY

EDWARD BRUCE WILLIAMSON*

1877-1933

Edward Bruce Williamson, Research Associate in the Museum of Zoology at the University of Michigan, died at his home in Ann Arbor, February 25, 1933, after an illness of nine days.

Graduating from Ohio State University in 1898, he was appointed Assistant Curator of Insects in the Carnegie Museum at Pittsburgh, a position he resigned to become a fellow at Vanderbilt University a year later. In 1916, the Board of Regents appointed him Associate Curator of Odonota in the Museum of Zoology of the University of Michigan and in 1928 changed his title to Research Associate.

He had had a life interest in dragonflies with correspondents throughout the world and his library of the literature on dragonflies is one of the most complete (several thousand titles) ever gathered together.

An indefatigable worker—his usual laboratory day started before seven—he has published a long list of important monographs and articles. He was an inveterate field observer and collector, believing that only by first-hand knowledge of the insects in nature could one hope to obtain an understanding of the complex problems they present. He had conducted expeditions in North, South, and Central America and in the West Indies, had probably seen alive and under their natural conditions more species of dragonflies than any other student of the group and his collections are unrivalled.

Active and full of enthusiasm for his work to the last he has been an inspiration to his colleagues. In his death the University loses a most loyal friend but the publications, collections and library he leaves will endure as long as there is an interest in science.

Born at Marion, July 10, 1877, he was a son of the late Mr. and Mrs. Lent A. Williamson, who came to Bluffton when he was a small boy. He succeeded his father as president of the local bank in 1905. His wife, Anna Tribolet Williamson, their foster daughters, Dorothea Thomas, Mary, and Jane, his brothers, D. K. Williamson, of Bluffton, M. P. Williamson, of Albuquerque, N. M., and sister, Mrs. Earl Merriam, of Kansas City, survive him.

^{*}From "The Michigan Alumnus," March 11, 1933, by Frederick M. Gaige, Director, Museum of Zoology.

A BIT OF PERSONAL IRIS HISTORY*

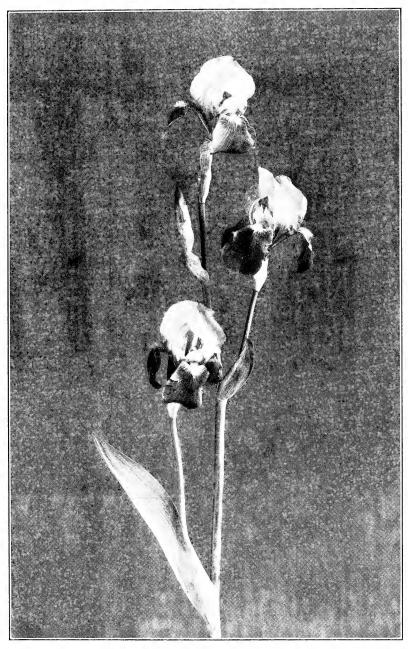
E. B. WILLIAMSON

At the outset I must confess that I have never kept the records that I should and that I cannot assign definite dates to certain events, a matter which, however, I believe is of minor importance. For example I do not know now when I began sowing Iris seeds. In 1909 I had growing in my small garden a number of species of Oncocyclus as well as a considerable number of various Apogons and Pogoniris. Many of the species of the last two subgenera had been obtained a year or two before from Mr. J. N. Gerard and the Oncocyclus had been imported from Holland.

At this time I had possibly not more than fifteen or twenty varieties of Pogoniris and I had no inkling of the great number of varieties even then on the market. I had been raising seed on these since about 1906 and the first seedlings began flowering about the time I had accumulated a fair number of other species. Attracted at once by the peculiar colors of the flowers of several species of the Oncocyclus, I dropped for a time all interbreeding of the Pogoniris varieties and made all my crosses between species or varieties in different subgenera. I had on hand for this work a good stock of I. korolkowi in its several varieties, a number of Juno and bulbous Iris, including I. orchioides as well as commoner things, several species of Oncocyclus including I. susiana, iberica, gatesi, lorteti paradoxa, and one or two more whose names I have forgotten now, possibly fifteen or twenty species of Apogons, and an equal number of Pogoniris.

It soon became evident that crosses of Apogon with other subgenera were practically impossible and that nothing particularly attractive could be expected from such crosses. The only cross out of Apogon I ever accomplished was $missouriensis \times susiana$, a weakly thing of no value. The Apogons could, however, be crossed among themselves and a number of such crosses were made. The only one of these of value to the flower grower was a cross of $foliosa \times fulva$ and many seedlings were grown. The offspring varied greatly in color, some being almost as red as I. fulva and from that, with

^{*} From the catalogue of the Longfield Iris Farm, 1922.



Cinnabar (Wmsn 1928) a Silver Medal Iris and typical in vigor and branching of the Longfield introductions.

less and less red, to the brilliant royal purple of the plant named for my mother, Dorothea K. Williamson. In Apogons it is more difficult than in other rhizomatous Iris to prevent pollination with pollen of the same variety and I found many seed planted with no hint of hybridization. This was true of *I. foliosa* but among these seedlings a number of pure white ones appeared. I invariably lost these plants, however.

With the bulbous and Juno Iris I never raised any hybrids. All soon perished for me except *I. orchioides* which seeded abundantly and whose seeds I have found easy to grow.

This left me with the Oncocyclus and the Pogoniris. Interbreeding of the Oncocyclus species promised something of interest but was impractical because of the great probability that such hybrids would be as difficult to grow as their parents and these I was able to keep in the garden only by frequent renewals. Under these circumstances the obviously most promising field lay in crossing Oncocyclus with Pogoniris. This was continued for several years. In no case, however, did I succeed in raising a hybrid between the two subgenera with a Pogoniris as a seed parent. And the glorious I. lorteti which flowered for me only once, and the giant I. gatesi, of which I had several flowers, likewise produced no seed. Certain other Oncocyclus also failed to set seed and in fact of the ones available I raised seed only on I. susiana which proved to be such a good seeder that in a few years I had flowered in the garden fourteen distinct varieties from this one seed parent.

I. korolkowi in its several varieties also proved a good parent and from it, crossed with Pogoniris, a still larger number was raised. Some of these hybrids, contrary to the larger number and to all the Susiana hybrids, were fertile.

Northern Indiana did not seem favorable to the growth of these Oncocyclus and Regelia species and their hybrids, so a few years ago (1920) the entire collection was given to B. Y. Morrison to test out. I had given the following names to selected varieties of the Oncocyclus hybrids, Maude, Margaret, and John Tribolet, and Cherokee Maid. (This last though carrying few flowers to the stalk was a rich coppery blend with the big domed standards of *I. susiana* and narrow spreading falls of roughened velvet, a richly lovely thing, but as it required special care I doubt if it is still in existence. —Ed.)

None of the Korolkowi hybrids were named. (They ranged from 10 to 18 inches in height and though a few were dark purple with spreading falls the majority were in shot-shades with drooping, narrow falls reminiscent of the pod parent. The range of color was from drab through buff and olive with frequent streaks of purple, the flower was far better proportioned to the slender stalks than those of the usual dwarf bearded varieties and the plant had that attraction of oddity that we associate with Fritillaries.—Ed.)

While this work with *I. susiana* and *I. korolkowi* was going on I had been enlarging my collection of varieties of Pogoniris and as Apogons and the others failed they were replaced by the easily grown and, to me, much more charming bearded Iris. At the same time some of the varieties obtained from Mr. Gerard had made a large increase. Among these was one, Amas, which had grown into a compact row possibly forty feet long. Flowers of this variety had failed each year to set seed. About the year 1910, when the row was at its prime, this variety produced at a conservative estimate five hundred flowers. Advantage was taken of some leisure time during its flowering period to cross pollinate every blossom in the row. Of several pods which gave some promise of fruiting only one yielded a seed. As I recall it this was the largest Pogoniris seed that I ever saw and from it grew the plant named after my father, Lent A. Williamson.

"Our dwarfs are about gone and the Intermediates well along (5/19/32). This year Desert Gold flowered about with them. Among the seedlings planted as seed in 1930, are many intermediates though in the breeding of them was no dwarf or intermediate parentage. The bearded Irises are bred beyond all unravelling."

"I find a delightful letter from Mr. Pilkington who writes that Tuscany Gold is very close to Byzantium (Ayres) which is not to be wondered at for Dr. Ayres has used it both ways most freely, he tells me, saying it is the most wonderful breeder he has in his garden. Our seed crop is in splendid shape and, by the way, there is a stalk of Ethel Peckham (Oct. 5, 1932)—and I reaffirm my belief that it is a good Iris.

"The Iris seed are all planted (Nov. 1, 1932). There were only 70,000 of them by actual count, instead of the 100,000 which I had estimated. The ground was in splendid shape and they are beautifully planted in eight 'lands,'—70 rows, each about eighty feet long. I hope the mess is worth looking at in 1934. But it must not

have over ten really worthwhile ones in it because 'it has been decreed that no one person can possibly produce even ten worthwhile ones in a year'—or introduce that many no matter how many years he has been accumulating them.

"To reduce it to a mathematical formula: One person growing 1,000 seeds may produce one good Iris,—therefore ten persons each growing 1,000 seeds may produce ten good Iris. But, one person growing 50,000 (or five times as much as the ten persons together) can produce only ten good Iris.

OR

"One person growing 1,000 seeds annually may introduce one good Iris each year. But if he waits ten or more years to introduce the result of his previous years of labor he cannot possibly, in that year, introduce ten good Iris.

"Question: Does an Iris have to be introduced at once to be good?

"Well, the ratings are out. Personally I fared very well and on that score I have no kick. I find that figuring the better ones, from different bases for interpreting results, it comes out in most or all cases, that about ten per cent of the good ones are Longfield introductions. I doubt if I deserve that much—certainly no more.

"From a scientific standpoint: I could make you laugh a week at things that crept in. For example, it is physically impossible that Ethel Peckham and Joycette were compared in a way to warrant the conclusion that they are identical in color. (Similarity in garden effect is not identity.—Ed.) And Mr. White crossed Aurifero and W. R. Dykes and got a fine Iris but this is not "the greatest advance in Iris breeding" for the year 1932—or any other year, though the Iris may be the best the world ever saw, for this isn't Iris breeding at all—it is simply crossing two admittedly fine Irises. And so on ad infinitum.

"As I wrote Dr. Kirkland, I am sure slipshod Iris breeders have done better in producing Irises than God, working by exact laws, has been able to do in producing judges. The pollen spreaders have got the judges all balled up in their own tracks.

"I can't picture very well the color of Copper Lustre. I hope some one will give us its Ridgeway equivalent. I wish I might get down to see it in 1933 but I know right now that I shall have to stick close to Bluffton about that time. The Freeport trip is still

on the program, however. I do not 'get' Mary Geddes myself and I may have some visual defect which leaves me in bad shape to sort my own seedlings.''

FROM A COLLECTOR'S NOTEBOOK.

"In the field I find it necessary to simplify ordinary routine to the maximum leaving the time and energy available for the business in hand—collecting and note making. I am never able to exhaust either opportunity—so you see everything else is neglected so far as I can do so. Hence arises my bad reputation for care of health, ordinary sanitation, decent clothing, letter writing, etc., etc.—all the little tin-gods of a mechanical sterilized civilization. Hence, by a native perversion, my intense enjoyment of a collecting trip—sans letter writing, newspapers, easily soiled and (relatively) expensive clothing, shaving, table manners,—restraints without number.

"This time we were out eight weeks and in these eight weeks I cursed more bad (From a collector's standpoint) weather than I have ever had to revile in all my former trips together. But in spite of it all we got a fine collection—91 species and 5389 specimens. But what an unbelievable slaughter we would have made had we had decent weather. As it is, it is the best collection ever made by any single party of collectors made in one season in the United States and that should be reasonably satisfying.

"I too think Tennessee a mighty fine state—I've crossed it several times in different directions on bug hunting trips. When all my family and friends have died off and I am a very ancient man, I expect to get a log cabin in one of these little Tennessee valleys, with just enough flat land at the lower end to make a good garden (vegetables), to thus escape the turmoil, if only for a bit. And I shall plant no flowers at all but take for my pleasure only those the hillsides and the edges of the woods give me. And against this riot of nature I shall plant only a very few prim rows—very straight and evenly spaced ones—of vegetables—things to eat—and other foliage should ramble as it pleased. For company there will be a good squirrel and rabbit dog or two. Do you suppose senility is creeping on me?

(Letters to Mrs. W. H. Peckham, 1932.)

WILLIAMSON IRISES

ETHEL ANSON S. PECKHAM

ADOBE. TB-M-S9L (1932); No. 981. TB-M-S6D (1929); No. 294; (SHERWIN WRIGHT × LENT A. WILLIAMSON). ALPENGLOW. TB-M-R3M (1929); No. 283; (Perfection × Lent A. Wil-LIAMSON). AMANECER. TB-M-Y9L (1929); No. 259; (Lent A. Williamson \times ———). ANDANTE. TB-E-S1D (1930); No. 725; (ALCAZAR × -------); □. ANOSIA. IB-M-S6M (1925). ARGYNNIS. TB-F-Y9M (1925); No. 69; A. M., A. I. S., 1928. ATIRA. TB-MF-Y4L (1932); No. 884. AVATAR. TB-E-S4M (1927); No. 154; A. M., A. I. S. 1929; □. AZURINE. TB-M-S1L (1930); No. 470; (NOKOMIS × -----). BEAU SABREUR. TB-M-Y9D (1930); No. 476; (HESPERIS) × (-----× Dominion). BERGAMA. TB-M-S9M (1932); No. 434. BRENTHIS. TB-M-S3M (1927); No. 192. CADENZA. TB-M-S9L (1930); No. 816; □. TB-M-W3M (1930); No. 452; (Lent A. Williamson \times CANTABILE. -----); □. CANTATA. TB-E-B7M (1930); No. 875; (LEREMA × DOMINION); □. CARNIVAL. TB-M-S6L (1928); No. 1. CASTALIA. TB-M-B1L (1933); No. 413; (ORIFLAMME × ------); \(\subseteq\). TB-M-S1M (1930); No. 817; (Lent A. Williamson \times CAVATINA. —————) ; □. CHALCEDONY. TB-M-S7L (1928); No. 74. CHEROKEE MAID. MB-Onc-B (1918); (susiana × -----). CHERRY RUST. TB-M-S9M (1932); No. 998. CHEYENNE. TB-M-R7D (1930); No. 549; □. CHIANTI. TB-M-R9D (1929); No. 277; (Rose Uniquex----). CIMARRON. TB-M-R9D (1932); No. 980; □. CINNABAR. TB-M-B9D (1928); No. 208; (small variegata blend (No. 90) x mixed pollen); Silver medal, A. I. S. 1930. COLIAS. TB-M-Y4L (1925); No. 77; \square . DAZZLER. TB-M-R3M (1932); No. 1000; □. DECENNIAL. TB-M-Y9M (1930); No. 486; □. DOLLY MADISON. TB-E-S3L (1927); (LENT A. WILLIAMSON x mixed pollen); No. 252; H. M., A. I. S. 1926. DOROTHEA K. WILLIAMSON. Hex-B3D (1918); (fulva x foliosa). DOROTHY DIETZ. TB-M-W3D (1929); No. 306; (WYOMING X LENT A.

WILLIAMSON).

FALLEN LEAF. DMB-E-S9M (Wmsn.-Gers. 1931); (korolkowi×-----). FLAMINGO. TB-M-S9M (1929); No. 256; (Lent A. Williamson×-----). FRIAR TUCK. TB-M-S9D (1929); No. 325.

```
GAY HUSSAR. 1B-M-Y9D (1929); No. 380; (----× No. 50).
GEO. J. TRIBOLET. TB-M-S9M (1926); No. 145; (SHERWIN WRIGHT X
   ———); Silver Medal, A. I. S. 1928; □.
GRAPTA. IB-M-S6M (1925); No. 8.
GRISELDA. TB-M-S9M (1928); No. 214; (AZURE × mixed pollen).
GRISETTE. TB-M-S7M (1928); No. 335; (MME. CHERI × mixed pollen).
HESPERIS. TB-M-S6M (1926); No. 155; (NANCY ORNE \times-----); \Box.
HEYDAY. IB-F-Y9M (1931).
HIAMOVI. TB-M-B3L (1930); No. 438; (STANDARD BEARER × -------);
HYACINTHUS. TB-M-S9D (1928); No. 216; (ARNOLS × mixed pollen).
HYDROMEL. TB-F-S6M (1928); No. 10.
ILLUMINATOR. TB-M-R1D (1932); No. 492; □.
JANE WILLIAMSON. TB-M-S7L (1928); No. 211; (PARC DE NEUILLY X
   mixed pollen); \Box.
JOHN C. TRIBOLET. MB-Onc-S (N.).
KEDESHKA. TB-M-S9M (Wmsn.-Gers. 1933); □.
KUBLAI KHAN. TB-M-R3D (1931); No. 786; (CINNABAR ×———).
S. N. H. F., 1924; A. M., R. H. S. 1929.
LEREMA. TB-E-S9M (1927); No. 229; (SHERWIN WRIGHT × mixed pollen).
LUZIANNA. TB-M-S1M (1932); No. 51; □.
LYCAENA. TB-M-W3M (1925); No. 79.
MARESCHAL NEY. TB-M-S4D (1930); No. 307; (NANCY ORNE ×-----)
   \times (——); H. M., A. I. S. 1932; \Box.
MARGARET ANNE. TB-M-S9M (1933); No. 446.
MARGARET TRIBOLET. MB-S1 (1918).
MARY WILLIAMSON. TB-E-W3D (1921); No. 59; □.
MATAGHAN. TB-M-R1D (N.); (Geo. J. Tribolet \times ———); \square.
MAUDE TRIBOLET. MB-Onc-B (abt. 1916).
MUSCATEL. TB-M-R3D (1929); No. 254; (LENT A. WILLIAMSON × -----).
NATHALIS. TB-M-R7L (1927); No. 53; (WINDHAM × -----).
NIGHTSHADE. TB-M-B3D (1932); No. 675; (SHALIMAR × -----).
ONYX. TB-M-Y9L (1928); No. 217; (Koya × mixed pollen).
OPALINE. TB-F-S9L (1930); No. 473; (Mother of Pearl x----).
PLAYBOY. IB-F-W3D (N.).
RASAKURA. TB-M-R9M (1930); No. 478; (RAJPUT × DOMINION); .
RHEA. TB-M-S9M (1928); No. 355; (Isoline x mixed pollen).
SANDAKAN.
            TB-M-S9M (1930); No. 487; (NANCY ORNEX-
   (Dominion).
SEGOVIA. TB-M-B7D (1929); No. 253; (LENT A. WILLIAMSON × -----).
SILVER RIBBON. IB-F-R7M (1926).
SISKIN. IB-F-Y4 (N.).
SONATA. TB-M-S6L (1929); No. 295; (SHEKINAH × LENT A. WILLIAMSON).
SUMAC. TB-M-B9D (1932); No. 957; (Lent A. Williamson \times ———); \square.
TALWAR. TB-M-R7M (1930); No. 521; (LEREMA × DOMINION); .
TERIAS. TB-M-S7L (1925); No. 86.
THECLA. TB-F-R3M (1925); No. 135.
TUSCANY GOLD. TB-M-S7L (1929); No. 243; (EMPIRE × LENT A. WIL-
   LIAMSON).
TUSCARORA. TB-M-R7L (1929); No. 308; (NANCY ORNE × LENT A.
```

WILLIAMSON).

```
VESPER GOLD. TB-F-S4L (1926); No. 388; (Pocahontas × mixed pollen);
H. M., A. I. S.; □.
YATAGHAN. TB-M-Y9L (1930); No. 500; (Geo. J. Tribolet × Dominion); □.
YELLOW RAIL. IB-M-Y5L (1926); No. 186.
ZAMORA. TB-M-R7L (1929); No. 281; (POWHATAN × — — ).
ZINGARA. IB-M-Y9M (1928); No. 9; A. M., A. I. S. 1930.
```

While compiling the list of Irises raised and introduced by Mr. Williamson I cannot help thinking about their varied styles and characteristics. Perhaps no introducer has produced a greater range of color and shape, but Mr. Williamson did not confine himself to one section, even of a group. He interested himself in trying to feel the needs of the real lover of Irises in gardens and of the landscape architect when he wished to plan an Iris garden that would have attractiveness and still grow and bloom well with little effort or expense. Thus there is a set of small varieties in several colors, well branched and with flowers properly proportioned to the height of plant, that will be invaluable to the sensible Iris gardener. Among these we find Playboy and Siskin, with more selections awaiting names. This type of thing meets with little sympathy among the usual run of Iris judges who are casting into the scrapheap anything not a giant or that can give a judge a knockout blow.

The attitude towards a plant or race of plants should be the one that Mr. Williamson took and that Mr. Bowles and a few others take. A discriminating knowledge of what is really fine and beautiful of each type of plant as of its own sort. When we get more raisers and gardeners like this our gardens will not only be things of beauty but they will be joys forever. It is notable that few breeders (and Mr. Williamson often said he did not consider himself one) have produced good amoenas. Those in commerce today that are large, good growers, of fine substance and clear color can nearly be counted on one hand, Mildred Presby, Rheintochter, Rhein Nixe, Cantabile and Dorothy Dietz being the sum of them and of all Dorothy Dietz is the very best in every way with Cantabile well up in the running. More amoenas could be seen in the Williamson seedling patches than elsewhere, probably due to the wide range of crosses made, and the use of mixed pollen.

This is the time to bring forward the way Mr. Williamson used mixed pollen as it will be noticed how often it figures in the parentages given in the list. A seed parent was chosen, usually a row of plants of it, and pollen of two or three varieties, picked for their good points in some particular line, was used. Indiscriminate mix-

ing of pollen was not practised and as much thought and study was put upon the selection of the pollen parents as is ever exercised by any other Iris "breeder." That the results were immensely varied was likely and it gave a wide field for selection which is, after all, the most important part of the game and where the "breeder" really does the job. Mr. Williamson often stressed this point and firmly backed the Registration Committee when they assigned the origination of a variety to the selector rather than to the actual "crosser."

At one time Mr. Williamson sold sets of numbered seedlings, in fives I think, and scattered among them were several varieties that made a certain mark. These were Lycaena, an amoena; Terias, a reddish blend; Hesperis, a deep bronze blend, and Argynnis, a blended variegata. People who had purchased the set containing Argynnis counted themselves lucky and I should say it still has park value in the same way as does the Bliss variety, Knysna. In our hurry to cry up the newer and finer things we forget what really is available in quantity for those who wish to use Irises for an effect. The slogan is—we have enough yellows, enough variegatas—but, have we at price and in quantity for large mass plantings? Not unless we keep repeating varieties which lend sameness and make our countryside all bloom at once, as it were.

Among variegatas raised by Mr. Williamson we find one of a style quite different from the rest, Beau Sabreur, a flower that a good Iris judge could recognize anywhere, standing out because of certain characteristics just as John Evelyn stands out among Daffo-This Iris has richness of color and great floriferousness and seems to do well almost everywhere; its one failing, in some climates, is a slight floppiness of standards after rain. However, at one time all Irises did this and but few of them had the other qualities inherent in Beau Sabreur. Gay Hussar is the best of the smaller variegatas and Heyday is short but gay in effect, the clear standard color being valuable, while Zingara is the brightest of wee gypsies and well deserved its award. Unique is Decennial and of all the Williamson variegatas the most outstanding. With fine quality, its unusual lemony yellow top sharply contrasting with the blue-purple falls, this Iris is one that is gradually coming into its own and rewarding the true lover of Iris aristocrats. Mr. Williamson introduced this variety when the American Iris Society was ten vears old, hence the name.

Many dark blends of reddish, bronze and purple tones are in the list, the most successful so far being Mareschal Ney and Cinnabar. We have many handsome dark, rich varieties nowadays but do we have many that are reliable and within the pocket of the general buyer that will give us a dark mass of brilliant color? No. it is to the Williamson varieties the canny gardener must go, for he wants flowers, masses of them, every year, and these are the varieties that give them. I think the percentage of Williamson Irises that grow and bloom well in most climates is higher than that of any other raiser, certainly of American ones. I know that the gratitude of the gardening public and garden makers has gone forth in many blessings when flowering time came around. The first of these varieties was, of course, Lent A. Williamson, the next Geo. J. Tribolet, a deep bronze purple; then Hesperis, Hyacinthus and Alcanna. All these are now surpassed and we look to Mareschal Ney, Sandakan and Cinnabar and, not in vain, for they are all good and if we want to lean towards red blends, we can find many rich and varied sorts with Rasakura leading the line. Cinnabar, that grand purple, has labored under a misunderstanding that came into print because someone got a wrong root and wrote of it as a washy blue gray bicolor. Now, the real thing is not thus, for its bicolor quality comes only from its velvetiness and its tone, a rich redpurple, withstands rain and hot sun better than any dark Iris I know. Why should an Iris called by a discerning person, Cinnabar, be a washy blue gray anyhow? What is cinnabar enamel but red? I choose this Iris as the best of its color class today and group it with any other set of colors, either reds, blues or yellows. light or dark range, Cinnabar holds its place.

Perhaps it was really with the light blends that Mr. Williamson did us the most service. Dolly Madison, that lovely, pinkish mauve-gray, lit with gold that gives such a wealth of bloom and grows so generously, is something to be thankful for. I always remember that first day we looked at it in rain at Bluffton, standing beside a simple picket fence and really awe-inspiring in its dignity and reserved beauty. Sonata is a buff and blue blend, tall and satiny, another easy to place in a garden, lifting some more gloomy variety to a beauty little dreamed of. We notice individual beauty in an Iris in a show. In a garden we should use varieties that have it in addition to the snap of brilliancy either in color or form that makes us notice them immediately. After our attention is attracted

they must have the innate quality to hold it, that is if we really want to know, love, appreciate and keep appreciating our flowers. I would place Sonata, Vesper Gold, Tuscany Gold, Flamingo and Cavatina among such varieties. Vesper Gold is a fairylike shape, not as in the Iris, Fairy, but if a fairy were transformed into an It really floats in the air and the graceful form gives just as much pleasure as the delightfully clean buff that combines so well Try this with Yvonne Pelletier and Dauntless with difficult hues. and throw in for good measure some Opaline, another Williamson blend that opens towards end of mid-season and which can only be criticized by the real cranks for form, and you will not be disappointed. Cadenza is another charming pink and gold blend that is little known to date. This makes a fine clean color mass but the "finish" is not that of some others, not that of Cavatina, for instance, which has the polish of a rare piece of porcelain. Cavatina and Grisette look like handwork. Most of the great modern Irises are machine made.

Clear, pale blue is represented by Castalia which is just introduced but has been liked for some time, while a darker tone can be had in Luzianna. This makes a good mass and is a prolific bloomer. Here again is a satin finish but the waved shape of the flower takes away from its dignity.

Mr. Williamson really tried for a "better Iris" of nearly every color, even in magenta, and succeeded with Zamora which, while short, makes a splendid mass. I would dearly love to attempt a magenta Iris planting, using pinks, pale blues and yellows, and believe it would be easy to achieve a good result. I should use Illuminator, which is brilliant in what the French term Cerise, Chianti and the handsome Cimarron, a bicolor of great size, and I would have my little joke in Carnival, which Mr. Williamson said was so ugly you could not help liking it! It is true! Carnival in the Iris garden is as the fine bit of Oriental ware of intricate design set in the "Early American Home." It gives just the fillip needed. Carnival is the lemon in the punch. Silver Ribbon, again, is a "queer" Iris. Great judges consign it to oblivion but greater ones rake it out again and make good gardens with its deep pink-red mass, all motley with silver as Jester's cap and bells, or better yet, the "points" that tied some velvet doublet's slashes.

And what of Dazzler, a cherry red, lighted with the gold that helps retain its color indoors? Dazzler is new and little known and later will give good account of itself.

And shall I speak of that one that I am honored to have bear my name? Some think it out of place to do so but I deplore the convention that prevents me from saying I am proud that Mr. Williamson chose that one or even desired to name one for me and feel sure no one can criticize my wishing to emphasize the fact that he would never have chosen that one if I had not thought it a good Iris. When chosen he told me he thought it his best to date, and my greatest regret is we shall not enjoy it together but the memory of his sane, sensible attitude towards the whole Iris question will be an inspiration and when we go about our gardens in Iris-time I think, to those who knew him and know his originations, it will be Mr. Williamson who will bring happiness and satisfaction.

COLOUR GROUPING FOR GARDEN IRISES

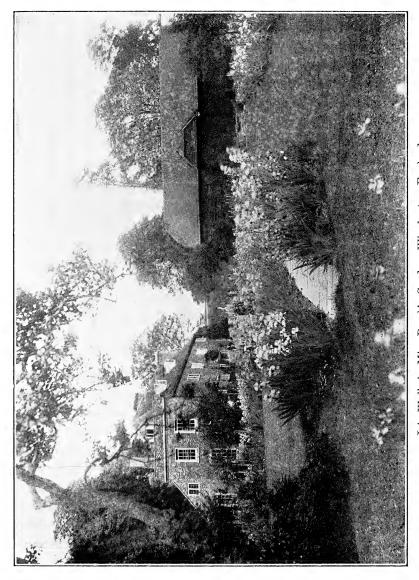
Louisa F. Pesel

It is as an embroideress that I have been asked to write some suggestions on the colour groupings of Garden Irises. Sometimes it is helpful to know how another person approaches the subject of colour and still more useful if one can understand the reasons which have governed any given selections of colours. In offering these suggestions I shall, therefore, try to explain the why and wherefore of my theories.

Four years in Athens, in charge of the Royal Hellenic School of Needlework, gave me an opportunity to study much of the old Turkish and Greek Island embroidery and to some extent to investigate how the East produces its brilliant effects.

As head of the Winchester Cathedral Broderers during the last eighteen months I have had to study combinations of colours in a very intensive manner, so that inevitably I have come to some definite conclusions on this subject. Whether they are sound or not remains to be proved, but in any case a statement of some of them will provide matter for thought, discussion and experiment.

I have only recently had some Irises over from America. I shall therefore not use many names by way of illustration because for one that might be cited there are probably a dozen equally good in common use in America which we have not yet tried out here in England.



Iris Walk in Miss Pesel's Garden, Winchester, England.

Some years ago when I was replanting a number of my Irises an old artist friend gave me some general hints about colour and I think I cannot do better than pass them on, as they helped me greatly.

- 1. Put creams with russets and warm reds.
- 2. Put whites and yellows with greys and lavenders.
- 3. Separate yellows from russets.
- 4. Use deep blue, such as "Souvenir de Mme. Gaudichau," with those of "Niebelungen type."
 - 5. Put pinkish toned Irises with whites.
- 6. Separate brilliant ones such as "Souvenir de Mme. Gaudichau" and "Sirius" (Bunyard) to make points in different groups.

In practise I found this advice very sound. For example, the whites and yellows certainly made lavenders and greys much more subtle; they were less pale, especially when contrasted with white. Creams did greatly help and improve the colour of reds and russets. Real deep blue seemed to bring out the underlying colour in shots (blends) of the "Niebelungen" type, and the strength of the blue was also valuable for emphasis and balance.

A point always to be borne in mind is that the size of a group must be considered, for balance is sometimes forgotten in planning an effect. Three plants might look spotty, whereas a big clump might be a success and reversely a big clump might overwhelm neighbouring colour by being too insistent, and a patch of three might give a really necessary point of contrast.

It is helpful to study colour used in other crafts, such as Chinese porcelain, old coloured MSS., some of the beautiful illustrations, often in vivid tones, in an ancient "Book of Hours" or even the embroideries for Persia and Bokharra for each and all often contain colour schemes worked out by craftsmen who, in their day, were masters of colour planning and balance, men who knew how to use and handle a very brilliant palette.

The following short notes made from the Salteng collection of China in the Victoria and Albert Museum from Chinese porcelain of the reign of Kang Hsi (1662–1722) will show what I mean.

- 1. Flowers, brick reds and whites. Stems, pale muddy purplish brown; background, black. A little palest straw colored yellow is also introduced and much jade green in the leaves.
- 2. Brick red, brilliant gentian blue and white; the same light pinkish purple, greens and black.

- 3. Much straw yellow and white and again the same purple, black and green.
 - 4. Yellows and a dirty pink mauve; white and green.

Now for the suggestions these bare notes give:-

The idea and effect of a black background could be secured by a very dark yew hedge or even by a black tarred fence or paling until the yew hedge was tall enough.

The colours which I noted as light pinkish purple are the colours of many Irises which one is inclined to consider pale and colourless, but used with the clear colours such as brick red or gentian blue (or the nearest to be found in Irises) would act as a useful foil in bringing out the strong colours and they themselves would have more delicacy of colour, because they would be in contrast to and not compete with their brilliant neighbours.

The colours of any flower are always greatly modified by the surrounding colours which seem to force them up or kill them and also their brilliancy is increased by their position whether the sunlight comes through them or not. Some time ago a keen Iris grower over here declared we had no real blue Irises. I suggested "Sensation" and one or two others that I thought were blue on my chalk soil, but none came up to his standard of true blue. They are needed badly; perhaps they do already exist in America. If they do not then some of us must see about producing them.

The queer pinkish mauve referred to above is also found in the illuminated letters in old MSS., and its use with pure colours often produces really beautiful and unusual effects. Gold and orange are also used together, enforced by the use of the complimentary real blue. Study of the Bokharra embroidered bed spreads shows a very similar combination of colour only the blue is much deeper and a rose red, also deep in tone, is added and its contrast with the orange and brick reds is interesting, for it is an arrangement we westerners are apt to be afraid of using. It is quite good however and should be tried.

In the planting of the earlier Irises a colour may not be available and yet it is one of which one feels the need. It is therefore necessary to introduce the colour by using some other plant or plants. Blue grape hyacinths could be planted freely with some of the smaller pumilas or chamaeiris, whilst deep red and purple tones could be found amongst violas and pansies, or even amongst some of the polyanthus and primulas. Some of the early hardy alpines

would give added colour if used as an edging or in large irregular masses.

In the canvas embroideries for the Cathedral it has been found necessary to use a good deal of yellow as a background colour. All possible and imaginable yellows have been combined to give a burnished and broken yellow. This idea of mixing many tones of yellow could be carried out in planting by using plants of different tones, heights and size of bloom. I have always found that yellow is best used either in large quantities or placed very carefully in quite small patches. Although the hybridist shouts with joy when he produces a real hard deep yellow, for beauty in the garden the paler straw yellows are often very valuable.

Variegatas are often difficult to place in the picture. I personally have not been markedly successful with them, perhaps because I do not really like them and so may not have tried hard enough to accommodate them. I think perhaps they might be effective as a note of interest with paler yellows, greys and lavenders with some really dark Irises such as "Bruno" and "Mrs. Valerie West" to balance them. Contessa Senni wrote that she had seen them looking very beautiful planted amongst yellow brooms.

It is possible to add a real discord, if carefully chosen and placed, to give an unexpected note and to make the whole group "sing." These discords are sometimes planned with much cunning, but they do also occur as the result of a lucky accident and if such accidents happen note should be made of them for future guidance and experiment.

What plants to put with Irises is always a moot point. Nothing, of course, that will smother their roots and keep the sun from them when the rhizomes should be ripening. I once used antirrhinums which were most beautiful for color but much too overwhelming for the roots of the Iris.

In England lupins are much used with Irises and they are good, if they are kept behind or in separate clumps, as their colours combine excellently. Columbines are satisfactory for colour and light in growth, but young seedlings each year are better than old plants which are apt to become too big. Violas and pansies make a delightful edging and in a raised bed rock roses in various pink shades are successful as their foliage is evergreen and so is effective even when they are not in flower.

One year I used great clumps of linum between Irises along a very long border backed by a low red brick wall. This planting was a constant joy for it gave a misty pale blue setting to the taller clean cut Irises and their straight green swordlike foliage.

Then there is the question as to whether to put daffodils or tulips with Irises. On the whole I am inclined to think the shape of the tulip is a better contrast because both daffodil and Iris have rather a cut-up silhouette and the smooth curves of the tulip are a pleasant change. Also the variety of colours to be had now in the modern tulips are interesting with the light and delicate tones of the early Irises. Some of the small ixias and scillas give dainty and brilliant patches against the new Iris leaves, a suggestive foretaste of colour to come.

About five years ago I planted several long double beds with Irises. They consisted of two beds about five feet wide with a narrow stone paved path running down between them, giving in all a total width of about twelve feet. The Irises were planted in circles about four feet in diameter with from seven to nine plants of a kind in each circle. In these circles I put my tallest and most striking varieties. These big units were placed about two feet apart and in the intervening triangles, which were formed along the edges, I placed three shorter Irises or single new ones, in order to observe their colours and general behavior in relation to the older favorites. The beds ran east and west and so faced south and the setting sun came through the long length of the border and added greatly to the beauty of the colour.

If I were advising a beginner I should suggest a rather similar plan—a number of long beds separated and surrounded by grass and I should treat each bed as a distinct picture. This is easier than to plan the whole as one unit, and is probably more effective. I should use my pinks and rose reds for the dominant note in the bed nearest the house or nearest the point from which they are first seen. I should keep my strongest and richest colours for the middle distance and use the paler blues and greys and whites for the furthermost bed as these blue tones carry the eye away most happily into the distance.

I should then make a careful list of all the Irises I possessed under their separate colours and fit them into a big scale chart or diagram of the groups I wanted to plant. It will then usually be discovered that there are far more of some one colour than others and these extras have to be distributed into other groups. This can always be done successfully so long as they are planted next to neighbours with which they will agree and which will enhance their beauty.

These are the lines on which I myself work. They may not appeal to other planters but I feel that some scheme (and any scheme is better than none) is a help in getting the utmost value out of these wonderfully decorative flowers. It may be argued that they look beautiful however they are planted: they do: but I am sure they can be yet more lovely if one carefully considers their arrangement.

LANDSCAPE PICTURE WITH IRIS

ALFRED C. KINSEY, Indiana University

There seems, to us, to be little excuse for an Iris except as an element of individual beauty, or a contribution to the beauty of a landscaped garden. Irises do provide material for scientific study but we, as biologists, need our garden as a hobby, not as a continuation of our books and our laboratory. Irises do provide some relief for a collecting mania but we question the moral right of any one to collect things of beauty if he intends to store them and treat them like so many nuts and bolts in a machinist's supply room—often in a mass, at best in straight rows with a chronologic or alphabetic scheme of classification. When that same mania adopts the number of varieties as the measure of merit in a garden, and the size of bloom and length of stalk and date of introduction as the chief basis for rating a flower, Iris gardening begins to look (to us) like a passing fad that will go the way of midget golf courses as soon as each grower has become his own breeder, intent on generating offspring more numerous than and, blessed thought, totally unlike the issue of any other breeder on the horizon.

If we are not too enthusiastic about the present state of Iris growing it is because we have, in the past few years, travelled several thousand miles visiting Iris gardens. We have seen big ones, noted ones—gardens to which judges go to rate Irises, gardens in which Iris reputations are being made or broken. In all we have found two large gardens in which there are any Iris pictures. If there are others within five hundred miles of us we wish we might

learn of them. In the score of other gardens which we have visited we find hopeless mixtures of good, bad and indifferent flowers, messes like those on an artist's palette, confusion like that in a basket of broken pottery, discord such as one might get out of a symphony if it were played backward, or up the page instead of across it. Complete hash made of the isolated notes from a symphony. Many of the elements in the mess fine enough, but the whole a hash of doubtful validity.

We have seen judges judging single stalks in a seedling bed, ignorant of the way they would look in mass, how they will stand in garden weather, whether they will grow with anything but spoon feeding, what they will look like against the other things which, perforce, we already have in our gardens. Judges completely ignoring the little things and the lower things, the lighter things—as though a symphony could be built entirely of 48-inch climaxes with arched standards and red-purple (they used to be blue-purple) tones that differ (Itch-way vibration chart) by only one vibration from any of the other notes of the symphony. Symphonies are built of many things besides climaxes. Symphonies are built—the notes are not in alphabetic or color-chart sequence. There must be foregrounds and backgrounds, main themes and episodes, blendings of tone and sharp contrasts, gradual developments and high relief, solid groundwork and lighter embellishments, mass effects and finer details, varying levels and moods. These are essentials in music, in sculpture, in poetry, essay, short story and painting; on canvas, in landscaping; with one flower or with the next—even with Irises. Gardens must be made with some respect for those elements of art or, frankly, they hurt some of us when we go into them.

Painting on canvas is not one of our accomplishments, but we can carry stalks from clump to clump in our garden, and set and reset our Iris varieties until, some year, we happen on the particular combination that is satisfying. At the ability of the sculptor we marvel; but we can stand here, and here, and here in the garden, until finally we get in the line of our eyes two masses of bloom which for height, size and carriage are right for the theme we are building. With little instruction in matters of form and color, we can try—and err—until we perfect this piece of the picture. We measure the result by our own satisfaction, by every reaction we get from those who come to our garden. We seize every suggestion that we can drain from the artist friends who, from time to time, come

our way. And no variety is allowed to stand until it is correctly placed in relation to its backgrounds and all of its flowering neighbors. Six times in six years we have moved some of them, still not despairing of finding their right use in some future move. But arriving at a successful picture—Queen Caterina next to Her Majesty on the edge of the pool—and nothing, improved Queens and Majesties, pinkest pinks, nor simp posiums, can tempt us to tamper with that picture. Fine paintings, great things in music, good garden pictures are worth meeting year after year.

Good garden pictures are the issue of love; they cannot be generated by fat purses alone. The first big Iris collection which we ever saw had cost its owner several thousand dollars. We had no hope of duplicating his collection, but there we received the inspiration to try to match or even improve upon his landscaped effects, using such things as were within reach of our pocketbook. In more recent years we have spent outrageous sums to secure new Iris elements for our painting and, truth to tell, some of them have proved as valuable as some of the older varieties which may be bought at a few cents per plant. We shall never regret the money we have put into Pluie d'Or, for we greatly needed a yellow of that shade, height and size for our pictures. But kochii, introduced, biologically speaking, in something like the year 1,000,000 B. C., is, in its way, just as fine a thing for this making of landscapes. Not in the Pluie d'Or way, mind you, but in its way, at points at which Pluie d'Or would be a sore thumb—or a sour lemon—in the symphony.

And so, when the editor reminds us that we were supposed to submit practical notes for the use of Irises, especially intermediates, in garden pictures, we reply that first of all we must be convinced that no garden is too small (nor too large), no gardener too poor (nor too rich?), no collection too old (nor too new?), no collector too lacking in training in art, to make an Iris garden a thing of beauty—if beauty is the thing you wish in a garden.

Our practical notes are just what that means: practical. They are the result of some years of trial and error in placing Iris. We don't know how they fit into the established principles of landscape art, but we wish some of our trained landscape friends would comment on them, and we wish others who have painted pictures in Iris would supplement our own findings.

GARDEN LAYOUT

Backgrounds. Absolutely essential for any garden picture, even if Iris is our hobby! Medium and tall shrubs, a few small trees, only a rare big tree. Consult nursery catalogs for lists. Avoid shrubs with such extensive root systems that no flowering plants will grow near them.

Open Centers. The center of any landscaped picture must be open lawn. From there, even in very tiny gardens, the landscaped pictures are to be viewed. When Irises encroach on the lawn to the point of closing it to narrow paths or to nothing, then we may have a riot of color, but no pictures.

Separate Pictures. If the whole garden is visible at one sweep it cannot command detailed and prolonged observation. Break the Iris plantings with an occasional shrub protruding from the background, making shrubbery pockets in each of which there is a more or less complete picture which is apart from the rest of the garden. Larger landscapes, and even average home gardens, should be more or less completely divided into two or more parts, with different lay-outs and different floral elements in each.

Vistas. Have at least one long axis, a shrub banked corridor, a vestibuled opening from one part of the garden into the next, a line along which one may catch a glimpse of the color beyond—just enough of it to entice one into the heart of that other picture. On small lots, if nothing else will serve, the narrow passage from the front garden to the garden behind the house may serve as the enchanted path.

Placing Irises. To obtain massed color effects, plant pure clumps of each variety, the size of the clump dependent upon the size of the garden and the average distance from which each picture is seen. Only occasionally should a mixed clump, containing more than one variety, be added to vary the pictures. For clumps viewed from, say, 20 feet, we find a three-foot diameter a good average. Vary with larger and smaller clumps and with specimen stalks. A clump started from one single fan develops a symmetrically compact stand never equalled by a cluster of plants; but larger clumps should be started with a dozen to twenty plants of a kind.

Landscape Guides. If you are entirely inexperienced in art you may need the services of a landscape architect—not the practical nurseryman who sells plants about your town. But for one with any appreciation of form it will be more interesting to work it out

with the help of some simplified book such as: Cridland, R. B. 1929. Practical Landscape Gardening. New York; De La Mare Co.

SEASONAL SUCCESSION

Earliest Spring. We depend on crocuses, muscari, narcissi of many varieties, early tulips, moss pinks (several colors), primula, arabis, cerastium, mertensia, celandine, etc. The older dwarf Irises have always proved a disappointment. With few buds and small blooms they were interesting, but not landscape material for mass effects. However, the mixed seedling dwarfs sold by Mr. Jacob Sass have proved as showy as anything in the springtime picture. Plant as edgings on the beds; but if there is nothing back of them in bloom at that season the edgings appear too formal. We prefer them scattered as small clumps everywhere through the beds, ignoring the tall bearded varieties which are not yet in bloom. With yellow predominating in the mixture, we do not attempt deliberate color combinations.

Intermediate Season. The garden depends on the later tulips, moss pinks, other rock plants, flowering shrubs and early blooming tall Irises. But it is a sadly neglected portion of the Iris list, with only a few really good varieties available. Make color combinations as noted below. With most of our beds given to the later varieties, we scatter the clumps of the early kinds throughout the garden, at points so far apart that it is a simple matter to distribute colors. By placing some varieties on the edges of walls or banks, it is possible to raise the blooms to a level where they are more impressive. In our climate the best varieties are: White: Florentina, Zua. Yellow: Etta, Nymph, Primavera, Sunbeam, Yellow Hammer. Blue: Bluet. Blue-purple: Germanica Major, Amas. Red-purple: kochii (a prize among the earlies). Blend: Zwanenburg (combined with a pink tulip). Pink: Georgia.

ELEMENTS OF HEIGHT

Intermediate Heights. These have, unfortunately, been at a disadvantage in all recent symposiums when, as a matter of fact, they are indispensable for fronting the garden beds and for providing that development in the theme which leads to the tall varieties as climaxes. Drop these shorter-stemmed and, quite properly, smaller-flowered varieties from the lists, and Irises must join hollyhocks and mulleins as garden material; useful in a few places, but impossible

as the main theme of the picture. La Neige is as indispensable in its way as the tallest white is in its other way. Tom Tit belongs where the high-rating and tall-stemmed blue-purples would look like spite fences crowding the edge of the path. Most of the early flowering varieties are intermediates in height and the picture must be made largely with them. For the heart of the season we front our beds with such things as the following: White: La Neige, White Knight. Yellow: Sherwin Wright, Gold Imperial, Yellow Moon, most of the early flowering hemerocallis. Blue: Mary Williamson, Celeste, tectorum. Blue-purple: Tom Tit, and the Siberians Perry's Pigmy and Blue Prince. Red: Apache, Cherry Rust, Dalila, Opera, Medrano, Seminole, Montour. Pink: Her Majesty. Peach: Lona, King Karl, Jubilee.

Heights in any Row. In any one row, paralleling the edge of a bed, plant only varieties of more or less similar heights. Slight variation is pleasing and by gradual step-downs considerable change may be effected; but abrupt changes are difficult to fit into any connected theme.

HERE AND THERE AMONG THE LOWLY OF THE TRIBE

ELLA PORTER McKINNEY

My notebook for 1933 carries the jotting: "This morning (April 24th of a late and hesitant spring) a wide swathe of I. atroviolacea with the sun through its tiny purple flowers, come upon suddenly amidst the daffodils, lifted my spirit much as the light through the stained glass windows in the gray chapel at Princeton lifted it yesterday at the Vesper Service." Notebooks for other years record bloom from this small Iris as early as the first week in April, and except for rarities like the bulbous I. reticulata it is the first Iris to show color. Used with daffodil W. P. Milner and the small single blue hyacinth, a composition is ready at hand for the protected and sunny corner of a terrace that can be enjoyed from a window when the winds are still unkind. One young gardener whom I know borders all her trim garden beds with a band of this Iris inside of which she uses here and there pink and white hyacinths. If a band of eight or ten inches is maintained a good definite border is established with foliage interest through the summer.

edges are as suited to this stiff and reliant plant as are wide swathes on a stony bank.

A quick procession of varied heights and colors follows this small courier. *Iris coerulea*, gray blue and diminutive enough to satisfy the most exacting rock gardener, near tulip *Gregii* in Miss Averett's charming hill-slope garden, is a remembered and coveted picture.

Marocain, Millet's rich dark purple, is a beautiful mass in the garden, and with the pale pink form of arabis is irresistible. In my garden it is rather better liked than Negus which is not so rich in color, but which does carry a flower more in proportion to the plant growth.

Ditton's Purple, the old and well known aphylla variation, is a trifle later than Marocain and an excellent violet self. I recall a long thick row of it at the top of a small bank down which lavender Phlox subulata spread to the highway. At the top of the bank and around the small property a white picket fence ran, on which carefully thinned and trained rose canes made a pattern. This was such an altogether delightful thought on the part of the owner for the passing motorist that I do not know why I did not yield to the impulse to go in and say so. I have a few aphylla seedlings selected over a number of years for good red purple tones and the habit of lifting the flower well above the foliage. These I use in association with Daphne cneorum or creamy white double arabis. They are also lovely with Alyssum saxatile var. citrinum.

With tulips, primulas, daffodils and doronicum spilling gold lavishly, the well fed and level garden does not so much need the early yellow Irises unless variation of flower form in the same color appeals to the gardener. Those of us who love yellow, however, recall with pleasure Mr. Sturtevant's description of a long border of yellow Irises behind which yellow tulips opened against kerria and the latest fragments of forsythia. The difficult gravelly sunbaked bank can be made a thing of golden beauty for late April and early May by the use of yellow Irises and masses of yellow alyssum. From the pale cream of Statellae through Glee, Lutea, Lutescens (the type which has beautiful grayish foliage) and Excelsa a good range of ascending color may be had. On such a bank Iris color may be continued by the warm white of Ivorine, pale creamy Gerda, or Halfdan peeped up with the delightful clear yellow of Nymph. This is an important introduction among the Irises, blooming at the



Iris Charmant in Garden of Mrs. W. H. Peckham.

same time as Florentina and "Old Blue," and is one of my favorites as is Ivorine.

I can think of nothing lovelier with either white or lavender wistaria than these two Irises—yellow and white—used in drifts or clumps as may be provided in the planting design. If the preference is for blue, use Fritjof, which is a most satisfying "intermediate" Iris with a long season of bloom. I am fond of the form of "Old Blue" check-listed as Fontarabie. What a footing for a lilac hedge (the old sweet common lilac, Syringa vulgaris) on a gently sloping bank! This is taller and bluer than "Old Blue" and a vigorous handsome plant perfect in association with this lilac. For the sake of the softness that comes upon them with age a few Clara Butt tulips added will give a picture to make artists and those that are not artists happy. Cultural necessity will demand that the Iris be planted well out of the reach of the lilac branches to give sun and air and more ease in keeping down the lilac sprouts.

I am always watching for gayety in the small home plantings visible from the street, rejoicing in the boldness of individual owners in carrying out a definite scheme with quantities of inexpensive material. Such a use of Iris Fontarabie bordering a driveway with *Phlox divaricata* spilling over the curbing made me sit up in my little car this spring. In a friend's garden this same Iris just escapes the weighted pink skirts of Bechtel's crabapple. The red purple of Crimson King would be lovely with this crab apple or with white Genista. The duller *kochii* is banished from my garden in favor of the brighter Crimson King, lovely with tulip Vitellina and *Scilla campanulata alba* near white wistaria.

My fondness for the old that is also fine keeps *I. albicans* in my garden. A whiter Iris has not yet been evolved. A young friend of discriminating taste rejoices in a single clump of this in the same visual angle with her pink and white dogwoods. Irises used in a restrained manner such as this give quality to a garden just as a single piece of choice pottery gives quality to a room.

Many years ago Mr. Sturtevant recorded finding in his travels an "intermediate" which he liked for its small and delicate lavender-white bloom. Later Miss Sturtevant introduced it as Pearl Blue. This year it was a joy in my garden planted in a long border to which its trimness was well suited. It has the added quality of delicious fragrance and is "quite right" with blue and white Scilla campanulata and a touch of an orange red tulip like

De Wet. This would also be lovely in combination seen against the fresh young tips of yew on the darker old branches. A clump of Glee, candle-like, against dwarf yew in fresh tipped growth is a recorded spring note.

To Miss Sturtevant I am indebted for another joy at this early Iris time. At the beginning of our friendship, long before an Iris Society was thought of, she sent to me among other Irises a bit of "Rochester Blue" she called it. The color is practically that of her later introduction Bluet and of Cengialti pale blue (not the type which is violet), but the stems are slender and the buds are held close. This erect bearing with exactly spaced buds gives to the clump an alert cheerfulness that would perhaps keep it to the exclusion of the other two should a choice out of the three have to be made. I like it tremendously against a sprawling clump of gray Artemisia vulgaris or Mugwort.

Sapphid is beautiful in color—really blue in its deep violet. The bloom is a bit floppy, but easily forgiven for its color in association with pink columbine and white fraxinella. Borders of rose colored fraxinella gain great beauty from white Irises like Athene and the magnolia petalled Sophronia. The lilac-rose of this fraxinella is warned against by some of our colorists and it is not so "safe" in a mixed border as the white, but I know a long border of it in which every plant was grown from seed by the owner that is a superb spectacle when in bloom and effective also in seedpod. A more perpetual late May and early June herbaceous planting than rose fraxinella and white Irises I do not know and more, the foliage of both is an asset throughout the season.

Gold Crest is a great favorite in our garden. We make the season longer by planting some in full sun and some in afternoon shadow of distant oaks. Afternoon shadow deepens the "blue" quality of all Irises. Many of us like pink Irises, though all of us have yet to see a pink such as we have in phlox Enchantress for instance. The purple is practically eliminated there and I believe our breeders will eventually eliminate it in the pink of the Iris. We have Midgard with much yellow in its pink and lovely with Dauntless near-by and a blue like Ann Page. Mrs. Alan Gray is the first of the pink-toned Irises to which we pin our faith in the garden I know best. There is an aristocratic quality about this Iris which resents intrusion and a well established clump is requisite to good bloom. It is early and most lovely in association with

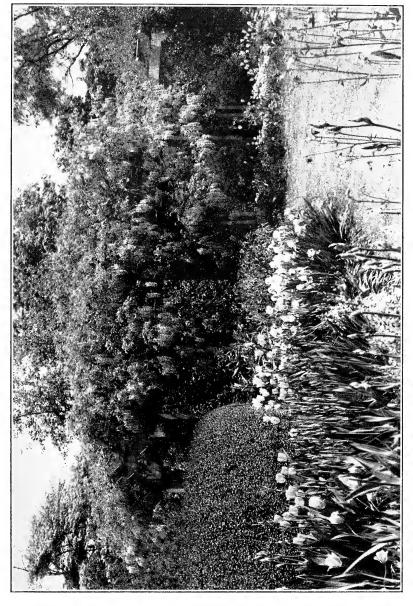
"Rochester Blue" mentioned before. The next pink Iris in season that commands my unqualified approval is Rheingauperle. Some years ago I visited a large Iris collection on the lookout for a satisfactory pink. Round and round and every time round I stopped in front of a good clear pink mass. Each time it bore the label Rheingauperle. The growth in my garden has been excellent under trial. The height is not too much and the flower is good as an individual and in mass. These lilac-pink Irises are cool and lovely with white columbines, both the long spurred and the fluffy ballet-skirted.

I am looking still for a pink low-growing late Iris with the distance effect of Her Majesty the individual flower of which is disappointing close at hand. It is probably in existence. There are many Irises for me to see! Violet and jaunty Tom Tit planted with crisp white La Neige, so beautifully named, never fail to give me pleasure. Then there is the white and black violet Richard II so late that the other bearded Irises are practically gone with its first bloom. This is so low growing that the most sophisticated rock gardens give it a place where it is delightful behind a spread of soft lavender nepeta.

As I read these notes over I seem to have said much about the older Irises. "Old" in this connection carries the poetic interpretation used by a colored man-of-all-work in describing a charming white-haired friend of mine of great quality and "class." "Miss White is not old. She jus' bin here a long time."

Three or four more old Irises must have a word. Iris cristata seems to me, as do gracilipes and tectorum, best when planted for itself without thought of association. Mrs. Wilder has suggested scarlet geum with this Iris and the suggestion is good. For me, however, its sheets of lavender and gold unaccented by a companion plant are as it grew on the hillsides in open oak woods in my child-hood home in southern Kentucky. Nothing in the flower kingdom is more beautiful than white Iris tectorum planted in a shadowed nook where the flower may be looked down upon. As a table decoration it is beyond compare. The fragile gracilipes fits in with tiarella, white dodecatheon and white primroses, but it is lovely enough without them and may well be made queen of the domain in the partly shadowed spot rich in humus.

Miss Averett, with an exquisite arrangement of pink coral bells and *Iris fulva* entered in a small local show, gave me a suggestion



Intermediate Irises with tulips, phlox, wistaria and scillas. Garden of Mrs. W. H. Peckham.

for the garden association of this tawny Iris with Heuchera brizioides. When we can have in our gardens, generally, the new pink forms of this Iris being developed by breeders, very fascinating pictures for mid-June can be worked out with these exotic looking types. As I write now, just on the edge of mid-June, Dorothy K. Williamson is showing amazing velvety red bloom spreading over a low embankment and in afternoon shadow—the position best suited to its sprawling habit and rich color.

This week I have been delighted by the bloom of some of Dr. Reed's *laevigata* seedlings. These were placed in my garden in the early spring. All have made good growth and most of them have bloomed with two and three flowers to the stem. Two that have opened are most similar to the broad spreading Japanese Iris of commerce, but smaller and blooming a full two weeks earlier and not of great stature (about twenty inches). One was almost white and another the most delicate lavender. The beauty of the lot is a wedgwood blue self of slender segments. An involuntary shout escaped me when I first saw this lovely thing in bloom. Exquisite is the word to fit. The plant is a lovely one with light green and rather wide graceful foliage characteristic of so many of the beardless species, and without the heavy mid-rib which marks I. kaempferi; hence the name laevigata, which tells us the leaf is smooth. I congratulate Dr. Reed who is enriching our gardens by his quiet work with this species.

In the haleyon days before the quarantine some of us in love with the whole Iris genus imported all the hardy species we could find, graminea, ensata, arenaria, gracilipes, tectorum, etc. We gathered verna and cristata from the hills of the south, fulva from Louisiana, foliosa from the Ozarks, missouriensis from Colorado, Douglasii and tenax from California, and from our eastern coast prismatica and setosa with varied forms of versicolor. Rather set apart we were and not infrequently crushed by the remark from a breeder to whom we looked up, "If an Iris has not height and size, I am not interested." Then rock gardening took the country. Economics did the trick. Irises must be in scale. Happy days are here with more Iris diversity and interest in our gardens. Breeders are combing their seedlings for small Irises of good clear color, form and proportion and small stature. May the good work go on and may we never see another Aphrodite introduced!

IRIS OVERTURE

THURA TRUAX HIRES

There are endless combinations of the intermediate Irises with lilacs, azaleas, Hugonis rose, and other flowering shrubs but for the small bulbous ones and the pumilas one must use great care in placing that they are not crowded out by rampant growing things. Having no rock-garden, I have placed my choice bulbous varieties on a sloping bank between the upper and lower gardens where limestone rocks have been placed to help hold the soil mixture in which these beauties like to grow. Along the edge of the upper terrace the Hugonis rose dips and sways, its soft yellow blossoms spilling down to meet the clumps of low growing *I. cristata*. Further on it forms the background for the rose-purple blooms of *I. aphylla* from Hungary. Again the yellow of the rose is a lovely background for William Mohr, Hamadan and others of the pogo-cyclus group.

I. persica is the first of the bulbous Irises to open for me, coming several days ahead of the reticulatas. Such a chubby little fellow! Its cool greenish white blossoms peer out from its high green ruff as though better to whisper to its companions, the winter aconite, E. Tubergeni, whose happy faces nod back from wide green frills. Gay companions these! Near-by the rich purple reticulatas sway above white thyme, such a nice dark green carpet protecting blooms from splashing rains. With these is the charming Hyacinthus azureum, while back and higher on the slope is the wild tulip, sylvestris, too big for its position, possibly, but of such a singing butter yellow we need must place it there.

The true pumila is the first of the dwarf bearded Irises to open in my garden, to be followed in about ten days by Azurea. This year the last bloom faded April 15th. It is a small rich purple beauty, perfectly proportioned for its height which is never more than five inches and with its falls held jauntily away from the stalk. The friendly grape hyacinth, *M. botryoides*, is a lovely companion, and with these are grey mounds of aubretias whose amethyst buds will soon unfold. Thisbe, a fat little pale lavender balloon, not over five inches high, is the last to open. It is just beginning to unfold its petals—May 15th—so can be used to form a charming picture

with that gay rascal, the Spanish poppy rupifragum, if the latter can be enticed to stay at home. Again it proves lovely with the early blooming pinks. A small, rich cream seedling has proven most useful in combination with some of the wild tulips, veronica and other small plants. It is small of flower as proper dwarfs should be and is no taller than Thisbe. It has substance and nicely flaring falls, while there is a yellow glow in its heart. As several friends have been given bits for their gardens it has been given the name of San (Moon God) that it may not feel a foundling amongst its neighbors. Orange Queen is a good yellow and it does not tuck its falls back as though wrapping up its throat against the cold. Marocain is a deep, deep blue, almost black in certain lights. It is fairly tall, to eight or nine inches, but tucks its falls back as most of this class do. A lovely gold seedling from Mr. Sass has grand horizontal to flaring falls which shows we can have fine form in this class if we demand it. But deliver our gardens from dwarfs with blossoms the size of the taller varieties. Even those of the dwarf Atroviolacea are far too huge for its height. Let us hope and ask for small ones of good form; little jewels we shall be glad to give an honored place with other wee treasures.

As my garden space is limited most of the older intermediate Irises have been banished to make room for the newer ones I wished to study. Albicans is very lovely and, with Istria, has been most useful in the spring garden. Of the yellows, Madre Mia is the first to unfold its buds. For years it has been one of the favorites, not only for its luminous soft color and rich apricot fragrance, but because of the memories it holds of the restful southern garden where it first bloomed and the charming friendliness of that gardener who so graciously shared her Iris child to add grace to my garden. Planted in front of the blue toned lilac, Pres. Grevy, and with phlox divaricata close by it is most pleasing. In the same border the more recently introduced Crysoro, a deep yellow of splendid form and quality, is quite brilliant against the reddish lilac of lilacs Congo and Marceau. This is a picture that "sings!"

Another taller yellow is Cyrus. This Iris is not so deep in tone as Crysoro nor does it have the ruffled standards, being a smoother flower. Such a warm, glowing yellow with a deepening flush on the blades of the falls that recalls the richness of apricots. The same tone is found in the vivid orange yellow blossoms of azalea Emile Liebeg and I think they should be grand growing together, a lovely

picture in deep orange and yellow. Possibly the paler Nicholas Beets would be as useful. Many interesting combinations of the azaleas with the intermediates can be had by gardeners who are fortunate enough to be able to grow the former. I am planning to use a shell-pink azalea, if I can find one of just the right tone, with a brown velvety intermediate.

Tree peonies, especially the single and semi-double ones, are very effective with the Irises. An accidental group that has proven most interesting is scilla campanulata Excelsior, its fine lavender blue bells nodding gaily beneath pendulous branches of a pearlbush, while just beyond is the peony, Miyo-hikari, aflame with enchanting semi-double deep rose pink blossoms. Ultra, a deep blue velvety bi-color is near the peony. The purity of the white peony, Beatrix, should be delightful near Istria, which is a cool blue white Iris.

Several of these white intermediates, such as Istria, Ingeborg, Florentina and Zua, not pure in tone, might have a clearer loveliness if planted in front of the graceful Azalea nudiflora which gives the effect of a soft pink cloud when its branches are abloom with clusters of flowers.

Two Irises that should give a lovely picture are Alice Horsefall and Maygold. The former is a rich glowing red-purple that strikes a new color note in the intermediate season, while Maygold is a soft yellow beauty. Phlox divaricata might be used with them.

Both dwarfs and intermediates can be used effectively near dogwoods, both pink and white, and with the earlier flowering crabs. Schneecuppe or the soft blue Coerulea would be charming massed close by M. floribunda, such a fine pink when the blossoms are opening while the globular buds glow like fire opals. M. Sargentii, too, with its lovely white blossoms, is a fine background for the earliest of the intermediates. Bechtel's crabapple, or a white dogwood, with azaleas, either the pink or blue seilla campanulata, phlox divaricata, the clear blue polemonium, violas and Irises can be grouped quite effectively. Neither of the small trees throw shade so dense as to interfere with the free blooming of the Irises.

For the intermediates tulips are happy companions. Louis XIV with Alice Horsefall and alyssum saxatile citrinum, or the pale yellow Iris Starlight might be preferred to the alyssum. Nymph and the breeder tulip Goldfinch; the lovely yellow tulip Alaska with the new brown intermediates; the soft yellow Minnesota is splendid with the deep blue of Heloise. The combinations to be had with

these two flowers are legion and each gardener will have special favorite groups. While I grow daffodils with the Irises they do not seem to group so well as the tulips, as I prefer the form of the latter with that of the Irises.

Challenger, a dark reddish violet, is superb. It blooms in the upper garden in a bed by Hugonis. I like it with the pale yellow. It might be nice with a very pale pink of the tone of the pink scilla or possibly with Kalos that soft pinky white Iris. As this begins to open while Challenger is in full bloom it might be tried.

Golden West, Mr. Jacob Sass' new intermediate, bloomed in the trial garden this year. It is a brilliant deep golden yellow that in a mass is quite the tone of Crysoro but the form of the flowers is very different. It is going to the lilac garden to bloom with Mont Blanc or the creamy Edith Cavell. Perhaps a tulip will be found to complete the picture.

Blooming just before the intermediates were Mr. Jacob Sass' new oncocyclus-pumila hybrids, Blue Topaz and Balroudour. Both are gems for the rock garden. Blue Topaz is a self of pale lilac blue, the midribs jade green and the style branches showing the same green tint. Two blooms are carried on each slender stalk. Though quite ethereal looking the blooms held well through rain and sun, remaining open for four days. With this I am planting the wild tulip *linifolia*, a scarlet beauty at noontide but as it slowly closes its petals at twilight showing a bronzy red and green reverse. Balroudour is an indescribable enchanter. The standards show nearly the same tone as Blue Topaz, while the falls are olive buff The style branches and crest show a soft luminous and bronze. pink tone that is rarely lovely as one looks into the heart of the flower. This, too, carries two blooms to a stalk and the flowers are of beautiful proportion. The first bloom opened the morning of May 6th and remained in first-class condition until the 10th, when it began to fade toward noon. During these days it had passed through a day of rain followed by one of hot sun and then two more of rain. Balroudour is such a subtle beauty it is hard to find just the right companions for it. I plan to try the small golden daffodil, N. juncifolius, a pinkish lavender armeria and alyssum saxatile citrinum. Of course the daffodils will be kept on a well guarded high plain where the rampant alyssum cannot encroach.

Now the intermediate season draws to a close, the dogwood blossoms are falling and the lilacs turning brown. As we plan group-

ings for new intermediates of unusual colors in this group, but not to be described now because they are just "numbers" so far, the tall bearded are beginning to bloom, giving promise of happy pictures and many, many more that will be so sad they will have to be replanned. How often lovely ones "just happen." One such is King Midas, that gorgeous golden brown red, beside scilla Excelsior, brilliant in morning sunlight and in late afternoon while shaded at midday by a Chinese juniper.

IRIS THAT BLOOM IN THE FALL

CLINT McDade

The culture of the fall blooming Iris is as yet in the experimental stages. No one really knows much about it. The suggestions I am giving are based partly on experience, partly on guess work, and partly on hear-say.

The first step is to choose a location and conditions that will bring the buds into bloom as early in the spring as possible. This will give a long period of time for the new rhizomes to develop into blooming size by fall. In my opinion such a location should be on a sunny southwest slope of a hill or on the southwest side of a house. A rock garden with protection from the north and east, and open from the south would be ideal.

Drainage should be perfect, and the soil should be as rich as possible without endangering the life of the plants from root rot. Coal ashes or sand should be used freely in heavy soil. About August 1st and August 15th give the plants a thorough soaking to start fall growth.

The grower who lives south of Philadelphia or along the sea coast has a decided advantage over those who live inland in the north. This, I believe to be largely due to the fact that the nature of the Iris plant is such that a long period of time must elapse between the spring blooming of the parent rhizome and the second flowering to permit the developing of the little side shoots into blooming size rhizomes.

However, it is my firm conviction that given a certain flair for growing plants and a willingness to spend a little money for the varieties known to be reliable fall bloomers, that any Iris enthusiast almost anywhere in this broad land of ours may experience the joy of seeing Irises in bloom before winter sets in. In extreme northern states, like Maine and Minnesota, it may be necessary to aid nature a little with a cold frame to hold off early frosts. South of New York City and along the east and west coast they will need no protection.

In perhaps twelve states in the extreme north the culture of fall blooming Irises may always remain something of an uncertain quantity for the casual gardener, but perhaps no more so than many other choice plants now cultivated.

In about twelve states where the winters are no colder than in southern Connecticut, they should give reasonable satisfaction without special attention.

In perhaps twenty-two southern and coast states I believe the development of the fall blooming Irises will be the greatest horticultural advancement we have had in years. Generally speaking, our summers are long and hot and dry. In the fall we usually have a fine season of fall rains and lovely weather. But the flowers that should bloom have long since passed on to their reward because of the blasting heat and dry weather. If ever there was a perfect solution to our problem, it is the fall blooming Iris. It basks in hot sunshine and laughs at dry weather. When the fall rains come it is in fine form to do its stuff.

A planting of these new fall blooming Irises has been made around the "Little White House" at Warm Springs, Georgia, under the personal supervision of Mr. Fred Botts, business manager of the Warm Springs Foundation. The President and Mrs. Roosevelt have graciously permitted me to name two seedlings in their honor.

To bring the joy of growing fall blooming Irises to the greatest number of people, three things would be helpful. First: the hybridizers should concentrate on breeding a type of Iris that will develop side shoots more rapidly. Second: we should determine some way by which the plant can be forced into active growth by fertilizing without producing root rot. Third: we should learn to appreciate a slightly different form in fall bloomers. Four foot widely branched stems take too long to develop and flower. Jack Frost is sure to cut them down except in favored locations.

It is my guess that the fall blooming type in general cultivation ten years hence will be a large flowered plant about 25 inches high with the stems partially sheathed as is the pumila of today. In sections like mine where killing frosts do not usually come before November 10th, practically all types and colors that are now seen in the spring should then be blooming in the fall.

The average Iris enthusiast has boasted so long that the Iris is the one fine flower that can be grown to perfection without petting, that he is unwilling to put a little special thought on fall bloomers and is, therefore, doomed to disappointment. Such a one brushes aside the rising tide of interest in the fall bloomers as a passing fad. He has tried them and hasn't even seen a bud—therefore, he consigns them to oblivion. Not so the discriminating gardener who is always seeking something just a bit out of the ordinary! He will give fall blooming Irises the same careful study that he gives to any other rare and unusual plant. In my section of the country the delphinium is somewhat difficult. After much painstaking effort and many failures I have at last succeeded in growing what would be considered very mediocre delphiniums in more favored sections—yet people come for miles to see them!

Certain garden aristocrats, such as the androsaces, the saxifrages, and the gentians, yet remain a closed book to me. Still, I do not dismiss them as passing fads. Instead, I hope to live to see them blooming happily in my garden. Naturally, I shall try to select those that seem best suited to my soil and climate, and that come within the range of my limited pocketbook.

I am favored with a mild climate, the thermometer seldom dropping below 10 and going below zero only on the rarest occasions. There is never a month in the year when I do not have Irises in bloom sometime during the month. My friends farther north simply sigh and envy me my climate. Yet I have never seen an Iris bloom in the fall in any garden except my own. somewhat significant since Tennessee is known all over the Iris world as an Iris growing state. All other Tennessee Iris enthusiasts think of fall bloomers being practical only in semi-tropical climates. They envy the grower in south Texas or California his fall bloomers as something beyond their reach, just as my friends in Michigan and Indiana envy me my twelve months of bloom. How many times have I heard the expression, "The Iris is a lovely flower, but it blooms for only ten days or two weeks and then it is gone." This from Tennessee neighbors, not from Montana or Maine gardeners!

The newer fall blooming varieties that have proved dependable over a wide range of territory are:

Frost Queen (H. P. Sass-H. M. Hill '33)

A dependable fall bloomer with white flowers about the size of the old Fairy. Has a tendency to bunch—otherwise very attractive. 22 inches.

Autumn King, Junior (H. P. Sass-H. M. Hill '33)
Similar to Autumn King in color but a much more prolific fall bloomer in some sections. Stems inclined to be weak with me. 28 inches.

Laura Hutcheson (H. P. Sass-H. M. Hill '33)
Another Iris somewhat similar to Autumn King but slightly smaller.

September Skies (H. P. Sass-H. M. Hill '33) A deep purple. 16 inches. Increases rapidly.

Olive White (H. P. Sass–H. M. Hill '32)

This is a cream colored Iris with green gold veining. Except for color it is much like Doxa.

October Opera (H. P. Sass-H. M. Hill '32) 24 inch stems. The color is similar to Opera. It is perhaps the most attractive flower among all the fall bloomers, but is a slow grower. It comes a little late in the fall.

Dorcas Hutcheson (H. P. Sass-McDade '33)
A violet colored self. 18 inches. Slightly fragrant. Worth more than the quoted price.

Eleanor Roosevelt (H. P. Sass-McDade '33)
Slightly fragrant. 26 inch stem. A Fluorite purple self.
One of the best. Worth the price.

Franklin Roosevelt (Jacob Sass-McDade '33)
Reddish purple with blue blotch on falls. Intermediate.
30 inch stems. Slightly fragrant. Increases slowly. I
advise waiting for a cheaper price before purchasing.

Equinox (Auten '32)

Perhaps the most dependable of all fall bloomers. 26 inch stems. Reddish purple standards with slightly darker falls. Blooms rather late in the spring and suffers in comparison with the larger, more graceful modern Iris.

The older dependable fall bloomers are:

Autumn King (H. P. Sass '24)

A fairly attractive blue purple Iris even in the spring. A clump blooming in September is the cynosure of all eyes. 30 inches.

Autumn Queen (H. P. Sass '26)
A small white flower of good form. Fragrant. 18 inches.

Golden Harvest (J. Sass '29)

An early yellow somewhat like Doxa in form. The flowers are large and veined with gold. In the fall it comes a little late with the frost at its heels.

Jean Siret (Andre '26)

12 inches. A pretty yellow dwarf slightly veined with purple. Given a warm sunny location, it will reward you with a wealth of bloom. With me it persisted through a week of snow and a drop in the mercury to sixteen degrees.

Souv. de Lieut. de Chavagnac (Andre '26)

13 inches. Violet dwarf. This gives me more fall bloom than Jean Siret.

Ultra (H. P. Sass '30)

Ultramarine blue. This is worth while for its early spring bloom, even if it did not bloom a second time.

When planted in protected locations lazica and the several variations of unguicularis often produce flowers for me in winter during any prolonged period of mild weather. In the far south and west they bloom all winter long. Alas, these are not for gardeners in the colder sections.

Other varieties that have been reported to me as blooming occasionally in the fall in various sections are:

Allies, Apache, aphylla, Crimson King, Diogenes, Jane Krey, John Foster, kochii, Leopold, Moa, Mrs. Alan Gray, Neola, Nyx, Peggy Babbington, Purple King, September Morn.

Reports on these varieties come from both north and south and indicate that the tendency to bloom a second time under ideal conditions is not confined to the south and sea coast. It has not been my privilege to see any of this group in bloom in the fall.

The varieties that follow have been reported to me as blooming occasionally in the fall in the far south or along the Pacific coast:

Dora Longdon, Georgia, Gold Imperial, Ivorine, Koya, Le Correge, Querida, Sikh, Sir Michael, Soledad.

Reports on these are general enough to indicate definite fall blooming tendencies in favored climates. Of this group I have flowered only Sikh. It bloomed on November 8 and was cut down by frost while at its best. Entirely too late for northern gardeners. Le Correge, Sir Michael, and Querida have also started to form buds in the fall, but they were too late for development.

I have also heard of isolated instances where the following have bloomed in the fall. Reports not sufficient to indicate any established tendency:

Albicans, Archeveque, Azurite, Bluestone, Caterina, Cecile Minturn, Chalice, Coppersmith, Fluospar, Fritjof, Her Majesty, Lent A. Williamson, Polar King, Rhein Nixe, Sindjkha, and W. C. Terry.

I have never flowered any of this last group.

Alcazar, Leonato and Ute Chief (very close to Alcazar. Ed.) have occasionally showed signs of forming buds in the fall in my garden. So far as I know these three have never actually flowered in the fall anywhere.

Except in the far south and along the sea coast the average gardener will probably never get much satisfaction from varieties that throw only occasional fall bloom. I have made this list more for the benefit of those who may live in favored locations and those who have an experimental turn of mind and wish to attempt special cultural methods to persuade these temperamental Irises to give an encore before retiring for the winter. Instead, the average gardener should stick to those varieties known to be dependable.

Visitors to my garden around October 20th will usually find all of the varieties blooming that are mentioned here as being dependable, and in addition, they will find in bloom many seedlings from various hybridizers that are being tested for dependability. I am always glad to receive new information and comments about fall blooming Irises from other sections of the country.

INTERMEDIATES

SHERMAN R. DUFFY

Intermediates bulk more importantly upon the Iris horizon with each season as more and better varieties are developed by breeders. This season an unusually high class lot of newcomers have been shown.

There was much complaint and criticism voiced by breeders and dealers at Freeport during the annual meeting concerning a proposed reclassification of Irises published in previous issues of The Bulletin which in effect abolishes the intermediate class just at a time when it is becoming clearly defined and well developed. As

there seems no question but that this class will soon occupy a position in the garden almost as important as the tall bearded class, it is difficult to understand the purpose of a movement to abolish it and merge its identity with other classes.

However, this classification is merely a proposed classification.* The great value of the intermediate class for the garden is in combination with the May flowering tulips, their blooming season being the same. The intermediate color range is deficient in pinks, so called, and the light lavender blues. The reason for the latter is that there are no chamaeiris of this color, the usual dwarf parent of intermediates and the pale blue-toned true pumilas such as Coerulea and Azurea will not seed readily.

The light blue tones in this class, so far, are furnished by cengialti derivatives and also such approaches to pink as we have. There may be a field for extending the color range of intermediates through the cengialti line. At present the available light blue lavenders are Silver Mist, Ariel, Gold Crest and a few others but they are all late and bloom closer to the tall bearded class than to the majority of the intermediates.

The old Mrs. Alan Gray is worth saving to plant with *kochii* and Bronze Queen tulip, a beautiful combination.

There are many fine yellows in the intermediates, in fact, the finest and purest yellow of all the tall bearded Irises. Yellowest of them all that I saw this year was Col. Nicholls' Crysoro, a gorgeous yellow of unusually vigorous growth and a remarkably free bloomer. A single division planted last fall produced eight fans and four bloom stalks this spring. This is a real yellow Iris. It made a height of 18 inches for me but the plant was set out in late fall and had no opportunity to make normal growth.

The only comparable tall bearded Iris in color is Prairie Gold and that is striped with white and has not the solid glowing color of Crysoro.

Both Hans and Jacob Sass had new yellows of extra fine color ranging from light to deep yellows which were of high quality and

* The IB class as originally defined meant TB crossed with *pumila* or *chamaeiris* or their derivative (DB). The named seedlings of this parentage showed intermediate characteristics in height, size, and time of bloom (incidentally a time in many localities when germanica, Kochi, albicans, and others also flowered). In future generations any characteristic may be lost and the old definition lacks force,—Hence the need of new consideration. R. S. S.)

worth naming. Mr. Hans Sass has a new one of the Ambera type that may prove even better. This year Ambera came with purple fleckings after the manner of W. R. Dykes and as in the latter they did not mar its beauty.

These soft yellows plant beautifully with tulips of blended color of the breeder type, particularly Louis XIV, Dom Pedro, Jaune d'Oeuf, Plutarchus and others.

There are a large number of fine white intermediates—I have six or seven from the Sass farms, none of which has been named, ranging from blue white to those with yellow at the center and on the haft giving a creamy tone.

Dr. Loomis had a new white, a cold white and of the purest white of solid waxy texture, on view in Mrs. Pattison's garden at Freeport, that attracted much attention. It was on its last bloom just as the tall bearded were getting into full stride.

Jacob Sass has a new seedling which he is naming Red Orchid that is the reddest toned intermediate I have yet encountered and ranking with the best of the tall bearded reds from a color standpoint. These reds, or more properly red purple, intermediates plant beautifully with the yellow tulips and also with the rose-toned tulips. The clear white intermediates are strikingly beautiful with Clara Butt and other clear pink tulips.

The handsomest intermediate planting noted this year was a Judas tree, grown bush form, branching from the base, surrounded with shooting stars, *Dodecatheon media*, with an occasional Bronze Queen tulip and clumps of the intermediate Iris Challenger and Ragusa. A soft yellow might be added effectively.

The very late narcissus, such as *Poeticus recurvus*, came with the early flight of intermediates and offer possibilities of many fine garden combinations.

Having accumulated some fifty intermediates in the last two or three seasons, their arrangement with the tulips has proved a fascinating study. A number of them should be named and described so that they might be made generally available for gardens.

They are also beautiful in combination with some of the early perennials such as the violas, aubrietias, and primulas which bloom with the earlier intermediates and later pumilas.

GARDEN PICTURES—NO. 7

Irises in Combinations

R. S. STURTEVANT, M.L.A.

Garden plantings may be designed for their effect at one season or to give a succession of effects at many seasons. In either case they should enhance the design of the garden itself and, as separate parts thereof, should possess a pictorial quality as seen from carefully selected points of view. Certain groupings, in size as well as in color, will appear to advantage within a few feet, while other larger plantings that offer bolder contrasts of hue require more foreground to lie within our normal angle of vision (a mere thirty degrees).

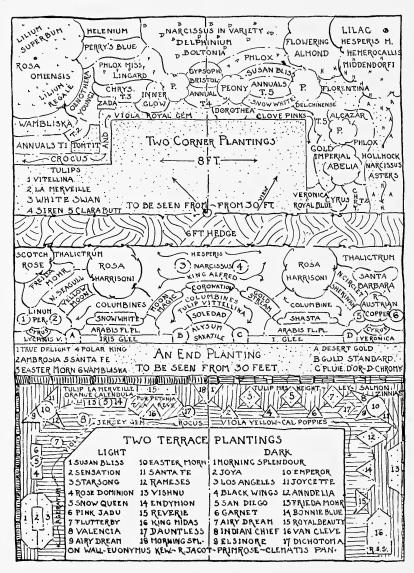
Hence in considering the elements of an attractive planting we must always consider both where we see it from and the relative proportions and heights of one color or form in relation to another.

Except for the flat-flowered Japanese, Irises may lend themselves in mass or in silhouette to a distant effect despite their frequent delicacy of tint and detail which makes some varieties fascinating close at hand. As their location recedes from the observer the taller Irises, well-branched, loom larger than the old type pallidas with blossoms at the top of the stalk. In fact the further away they are the more we must study their side view and build up our color mass from the ground to the greatest possible height and particularly so where a slope does not provide for higher plantings.

In near-by sites, even the tallest Irises (except in California) require background and other color at eye-level or above. In silhouette they will be loveliest against an even textured back-drop but in color masses the added height of flowering shrubs is almost a necessity. Whether we plant for one season or many we must remember that the Irises require a summer baking and will not endure smothering growths so that in mingling them with later

blooming perennials or shrubs it is the Irises that need the southern exposure.

Irises and Roses. At Iris time we have a choice of cream-white to yellow and flame roses. Hugonis (pale yellow), Ecae (cream), omeiensis (white), and xanthina (yellow) may reach a height of six to ten feet and form a rounded mass of even more unless



severely restrained and Irises should never be less than four feet away as a minimum. Persian Yellow, Harrison's Yellow, and Star of Persia, all in deep yellow, on the other hand, may grow to six feet and occasionally sucker freely but they tend to be erect and so leggy that the Irises may be almost at their feet. Austrian Briar (flame) has a reputation for poor growth and may be placed actually in front of the tallest Irises or (as in "An End Planting") peer out between aspiring stalks while the Scotch rose (spinosissima) is even dwarfer except in the lovely white variety altaica, but makes a densely suckered growth too heavy a shield from the sun for an Iris. These are all lovely with Irises and the larger ones particularly suited to extensive bank plantings, the Irises in lavender or white or purple massed at their feet.

Two Corner Plantings (not contiguous). We generally look in towards the corner and yet the corner itself should usually be softened by planting. To the left the yellow Rosa Hugonis is contrasted with the white of Wambliska or Zada and the deep blue of Perry's siberian is echoed into the deeper purple of the low Tom-Tit which makes an excellent low corner treatment. The addition of cream (Inner Glow) to the right repeats the yellow of the rose. In yellow and in white and in blue-purple we have interwoven two placings of varying size and height. The balance of the planting is for succession, though the Cottage tulips may overlap in season with the Irises.

To the right, the inclusion of lilac with its high bloom requires that we should see the group from a distance (from almost thirty feet away). Depending upon the season we have a choice of two effects, first Florentina, pink tulips, and Flowering Almond with lavender in Dorothea and the lilac. Then as they go by comes the pink and white of Susan Bliss and Snow White to one side and Gold Imperial leading up to the orange of Hemerocallis which lights up Alcazar most effectively. Later come pale peonies and clove pinks, larkspurs, hollyhocks, phlox and other perennials. Incidentally the bronze of Abelia is delightful with the yellows of Cyrus and Gold Imperial, and the lilac of Dorothea with the lustrous pink of Tulip Siren.

An End Planting in a Spring Garden. In such a location we need line behind line of color or the effect will be spotty and however many varieties we use there should be a simple underlying harmony of colors—in this case yellow, cream, and white swinging

to medium and pink and blue purple to left and right. We start with the dwarf bearded and narcissus; we introduce a touch of the intermediate Soledad, Sweet Rocket in pale magenta and white and many tulips; then rich the climax with the brilliance of the tall bearded, their size intensified by the misty rues and long-spurred columbines.

Two Terrace Plantings where we go modern at least in plan. In both cases we must place each plant with care even though we can hardly expect them to grow geometrically except as a circle. To the left the delicacy of many blends is intensified by an occasional cream or near-white while in the planting to the right we try sharp contrasts of red and blue-purple. Both plantings would be best seen against stucco walls and in both the unoccupied ground is planned for succession of effect of the simplest sort. Odd vines relieve the simplicity a bit and even with so many Irises the terrace should be nice to sit upon at all seasons in the cool of the day.

Spacing. Single rhizomes may be planted as close as four to six inches for immediate effect, but such a group will require thinning or replanting the second year. Eight- to ten-inch spacing is to be preferred particularly with the plants staggered in two lines eight inches apart. Block plantings of any depth lose in effect unless we are looking down upon them and the wasted space might well be devoted to other plants for succession. Low edging plants may actually touch the Iris sheaves but tall perennials must not be close enough to shadow the rhizomes too heavily. Irises of one variety may be safely crowded in two directions at least, but varieties should be started at least fifteen inches apart or more if they are to remain unmixed for even a few years. In a small garden of paths and beds three stalks of a variety (a two- or threeyear clump or a group of new rhizomes) may suit the picture, but with foregrounds of grass of any extent staggered lines four to six feet long will seem none too small.

VOCATIONAL GUIDE



WITH THE IRISTATICS

Prologomenon to Truth. I'm starting this new department because if funny things are going to be written about me, I'm going to write them.

Take that last Bulletin. It stated, under the head of "Vocational Guide" that I had once been exposed to theological training. Spare the thought! At one time I did have to learn by heart each Sunday and recite to my pious maiden aunts (on whom be peace) the Collect for the day. This "theological training" ceased abruptly I put on long pants and had my first shave.

Then there was that matter of the Yale Corporation. I have a corporation. It is on me. I am not on it. Nor did it come through Lux et Veritas. It was a gradual accretion accumulated through years of enjoying food and drink. Likker et Vitales, as it were.

Iris Primus. It gave me a thrill to discover (being a confirmed Iristatic) that when William Curtis started his Botanical Magazine 'way back in the year of grace 1787, (our corpulent King George on the throne), the first subject he chose to illustrate and describe was an Iris—Iris persica. This set me paging over the bound volumes in the library of the Horticultural Society of New York. In these long one hundred and forty-six years the Botanical Magazine has described Irises scores of times.

The Innocent Gardener. At the meeting of a well-known garden club this Spring there were distributed packages of Zinnia seeds.

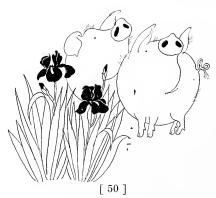
Each member was to raise his or her package and, in the autumn, there would be a Zinnia contest. Most of the members apparently understood this estimable purpose—save one charming woman (evidently a "bouquet" member) who rose to her feet and blandly asked, "What are we supposed to do with these seeds? Plant them?"

There are times I could wish some Iris breeders might suffer the same confusion.

A Clerical Iristatic. Raise your mugs of 3.2, you Iristatics, to the memory of one Samuel Gilbert. He was both a parson and a physician. His clerical activities included serving as rector of Quatt in Shropshire (what a swell name for a country house—Quatt!) and chaplain to Lady June Gerard, Baroness Bromley. To what extent he practised medicine I have not been able to discover. However it gave a scientific cast to his mind, and when he came to marry, he chose the daughter of John Rea, the botanist. He also was a persistent gardening parson, for in 1637 he wrote "The Florist's Vade Mecum" in which he confessed that his two weaknesses in life were Auriculas and Irises.

Foundlings. I am beginning to separate my friends into two classes—those who know and those who don't know any better. It all came about through trying to dispose of surplus Iris. For some years I have been depositing my declassé discards on the doorstep of friends near-by, and they, dear innocents, have been rapturously taking in these foundlings. Now they have acquired such an acquaintance with Iris that I am obliged to send the discards to distant friends who don't know any better. . . . I tried feeding them to the pigs, but their taste did not run to rhizomes.

RICHARDSON WRIGHT



THE FAMILY TREE

Crossing Pumila Hybrids with Regelio-cyclus Hybrids

JACOB SASS

Besides breeding for better tall bearded, intermediate, and pumila hybrid Irises, I have also tried and succeeded in crossing Oncocyclus hybrids, namely Beatrix, with pumila hybrids and *vice versa*.

The first series of these crosses was made in 1927. At that time I had only a limited number of Oncocyclus hybrids, such varieties as: Beatrix, Artemis, Giran and a few others. These bloom with the pumila hybrids. In 1927 I pollinated about 15 flowers of the Oncocyclus hybrids with the pumila hybrids and 45 flowers of the pumila hybrids with the oncocyclus hybrids. It is possible to pollinate 3 or 4 flowers of a pumila hybrid with the pollen from the three anthers of the Oncocyclus hybrids, especially the Regeliocyclus, due to the over-flowing quantity of pollen they have.

All of the 15 Oncocyclus hybrid flowers pollinated with pumila hybrids in 1927 grew pods, but most of the pods were seed free. All the pods of the Pogo-cyclus Irises dried up very soon after the pod had formed. Those of the Regelio-cyclus grew larger and ripened from the second to tenth of July. A majority of the pods had shriveled seed. Some had from 2 to 10 plump seeds and some had as high as 30 plump seeds, which seemed to be sound. thought I would save the seeds and sow them in the fall but within a few days the plump seeds had shriveled up. After that the seeds were sown in frames as soon as they ripened. Careful records were kept of all the crosses. In all, I sowed about 70 seeds in 1927 but only 2 of these seeds germinated the following spring. of these seedlings (Velvo) flowered for the first time in 1929 and the second (Blue Topaz) in 1930. The seeds procured from the pumila hybrids pollinated with the Regelio-cyclus Irises in 1927 were very light and shrunken. Not a single seed germinated. pumila hybrids pollinated with the Pogo-cyclus Irises did not set seed.

In 1928 I had about 25 flowers of the Oncocyclus hybrids. All of these were crossed with pumila hybrids, and in turn I crossed

about 75 pumila hybrid flowers with the pollen from the Oncocyclus hybrids. Again the Regelio-cyclus Irises set seed but none of the Pogo-cyclus Irises did. Unfortunately none of the Regelio-cyclus seed of 1928 germinated. About one-third of the pumila hybrid flowers crossed with the Oncocyclus hybrids formed pods. Those crossed with Pogo-cyclus Irises did not form pods. All of these pods contained shrunken seed and it did not germinate.

In 1929 the following varieties of Oncocyclus hybrids flowered for me: Hera, Isolda, Artemis, Turkoman, Shushan, *korolkowi, *hoogiana, Charon, Dilkush, Giran, Isis, Psyche, Nemesis, Saturnus and Beatrix. I did not succeed in securing germinating seed from them, although a large majority of the seeds were plump and seemed to be sound and fertile. Of the many pumila hybrid flowers crossed with the above named varieties, only one pod contained three sound seeds. These three seeds were sown in the fall of 1929 and all three germinated the following spring. The first of these (Stormy Dawn) flowered in 1931 and the other two (Balroudour and Gray Cloud) flowered for the first time in 1932.

The pumila hybrids crossed with Pogo-cyclus Irises, and the Pogo-cyclus Irises crossed in 1929 did not set seed.

Each year I increased my plants of Oncocyclus Irises as rapidly as possible and in the spring of 1930 I had about 50 flowers of these varieties that I could use for breeding. I did not succeed in securing germinating seed from either the pumila hybrids or the Oncocyclus hybrid Irises.

In 1931 I again made a large number of crosses and for the first time the seeds of *hoogiana and *stolonifera crossed with pumila hybrids germinated for me the following spring. These seedlings should bloom for the first time in 1933 or 1934. In the fall of 1931 I acquired 21 additional varieties of Oncocyclus hybrids from Robert Schreiner, of St. Paul, Minn. All of these bloomed in 1932. In all I had about 150 flowers that I used for breeding in 1932. Although I procured a large number of seeds in 1932 I do not know whether any of it will germinate in the spring of 1933 or later.

The Pogo-cyclus Irises do not set seed when pollinated with pumila hybrids or Regelio-cyclus Irises, and their pollen is also sterile when used on pumila hybrids and Regelio-cyclus Irises according to the results I experienced with these Irises.

The Pogo-cyclus Irises are the results of crossing Oncocyclus Irises with Pogon-irises and the Regelio-cyclus were obtained from hybridizing Regelia and Oncocyclus Irises.

Varieties starred (*) namely hoogiana, stolonifera and korol-kowi are Regelia Irises.

Following are descriptions, according to Ridgeway, of the five pumila hybrid cross Oncocyclus seedlings I have named for introduction in 1933.

Velvo (OP No. 1) (Beatrix x purple pumila hybrid). S. Pleroma Violet darkening to Haematoxylin Violet at midrib. Stigmas-Pleroma Violet veined Haematoxylin Violet. F. Velvety Dark Madder Violet overlaid Red. Edge is Pleroma Violet. Small black blotch on fall at end of beard. Bronzy brown beard. 1 or 2 flowers on 6 to 8 inch stem. (Close to Williamson, No. 1. Ed.)

Blue Topaz (OP No. 2) (Beatrix x yellow pumila hybrid). S. and Stigmas-Pale Violet Blue with darker sheen. Style branches Pale Violet Blue tinted green. F. Pale Violet Blue. Blotch on fall at end of beard overlaid Warm Blackish Brown. Warm Blackish Brown stripes on haft. Brown beard tipped orange. 2 flowers on 12 to 18 inch stem.

Stormy Dawn (P No. 31-1) (yellow pumila hybrid x Beatrix). S. Pallid Soft Blue Violet, darker at base with Reddish Brown sheen. F. and Stigmas-Pale Neropalin Blue. Brownish stripes on haft forming blotch $\frac{1}{2}$ " by $\frac{3}{4}$ " at end of beard. Falls overlaid Yellowish Green. Faint green stripes from blotch to end of flaring F. Gray beard tipped Brown and Green. 1 or 2 flowered on 8 to 12 inch stem.

Balroudour (PO No. 32-1) (yellow pumila hybrid x Beatrix). S. Pallid Soft Bluish Violet. F. and Stigmas-Deep Olive Buff darkening to Dark Olive Buff toward center with Olive Yellow blotch on half. Reddish Brown stripes in throat. Light blue beard tipped brownish yellow. 1 or 2 flowers on 12 to 18 inch stem.

Gray Cloud (PO No. 32-2) (yellow pumila hybrid x Beatrix). S. Pale Campanula Blue. Brownish Red stripes at base with Brown Purple sheen through base. F. and Stigmas—Dawn Gray. Brown stripes on haft forming Brown Purple blotch at end of beard on fall. Very fine green stripes from end of beard to end of fall. Beard white, tipped brown and yellow. 1 or 2 flowers on 12 to 18 inch stem.

Breeding Notes

H. P. Sass

Many inquiries have come to me concerning the parentage of Rameses since it was awarded the 1932 Dykes medal.

Rameses is a seedling of Baldwin x King Tut, and Waconda is a sister seedling. A brief survey of the Rameses family tree may be interesting at this time. Rameses might be said to be a byproduct of a series of crosses over a period of years with the object in view of obtaining a large flowered tall variegata. This goal has been obtained.

In 1910 I had about 18 varieties of Iris including Her Majesty, Maori King, pallida dalmatica, Mme. Chereau and other old timers which I intercrossed, keeping records and saving the best seedlings. At this time my brother, Jacob Sass, gave me a dark blue seedling and, crossing Mme. Chereau with this, I obtained a large, tall blue which became No. 1. This proved to be an excellent seed parent crossed with Amas and in 1919 I planted 135 seedlings. One of these bloomed that same fall. Being convinced of its fall blooming quality by several seasons tests I named it Autumn King.

When the others bloomed the following spring I selected around a dozen, and one of these, No. 21, large flowered and 3 feet tall, I crossed with Caterina. This cross produced Baldwin. This same No. 21 crossed with a red purple dwarf hybrid gave Doxa, formerly known as Olive Giant. These series of early seedlings were all in the blue scale.

Another line, designated to produce the desired big variegata, gave King Tut which has since proved to be a potent breeding factor. In crossing variegatas with Amas I encountered great difficulty, but finally from a slightly blended variegata which was No. 2 and Amas I obtained about a dozen dark blends. One of these, No. 40, a bloom of size and heavy substance, proved a good pollen parent. I used this on a variegata x Pallida dalmatica blend and in 1925 King Tut was one of eight seedlings from this cross that bloomed.

At this time I crossed Cardinal with King Tut and got a few big variegatas, of which King Juba was one. Another seedling of Beau Sabreur type from this cross crossed with No. 40 gave the very dark variegata blend, El Tovar. Rameses bred back to No. 40 gave light blends and variegatas larger and taller than King Juba.

In the meanwhile I had developed Nebraska by crossing Midwest and No. 2. Nebraska, which is pollen sterile and a poor seeder, crossed with Rameses gave Al-lu-we, a large flowered, tall variegata.

In breeding for a large, tall yellow I have used the same method as with the variegatas, but have had no success so far. The blends from Prairie Gold and other yellows bred with the tall bearded, trojana, Baldwin and Caterina are quite sterile. By breeding these strains together, I have a few yellow varieties but not of the desired size and height. I have not abandoned that route, but as I have bred a large white from the intermediates, I am trying this also with a yellow. Among a few seedlings from pollen of Wambliska I had a large yellow, rather pale, in bloom last spring. Another step or several may be necessary, but this route is more open, and not connected with so much guess work as with the blends above.

For some years I have been working for blended plicatas, with the ground colors of different shades and the edges accordingly darker. Mme. Chobaut is of this coloring but miserably small. Several years ago I made crosses on a yellow ground plicata with King Tut and a six inch white plicata, which I received from my brother. The seedlings from pollen of King Tut have a vinaceous ground color and a dark brown edge, while those from the other are rather light colored. What will be the result from crosses of the large and tall plicatas, say San Francisco with King Tut?

Prairie Gold is a seedling of Afterglow x Mrs. Neubronner; Midgard from chance seed Afterglow. Clara Noyes and No-we-ta are from a cross of Midgard with King Karl. As could be expected they are blends of varying shades, and lovely under artificial light. Euphony, as my records say, is a seedling from a small, tall stemmed variegata. It is a yellowish blend, but from a distance a fairly bright yellow. Crosses on this variety would not take well, so I planted some chance seed, which segregated into many colors including some fine blends. One of these blends, a bright Cinnamon colored variety I have named Golden Light. The flowers have the shape and size of Euphony and bloom on tall branching stems.

My first good red variety was Red Wing, a seedling of Alcazar. In crossing this with King Tut I have a series of red varieties from light to dark in color, and from medium in size to very large. Not a single variegata made its appearance among these and from this experiment I judge that the variegata coloring is recessive and Red Wing does not have the chromosome factors for this color. I have used mesopotamica with these reds, but the colors are a delusion and the stems rather flexuous. After several more generations, color and shape slowly returned, but height declined and patience, too. Occasionally a pure yellow springs up among the red seedlings, but always small flowered.

In pink, I have Imperial Blush, a seedling of Trostringer x Rheingauperle. Flowers are large and bloom on tall, branching stems. A large white, delicately tinted pink, would be a desirable acquisition, and this, I believe could be accomplished by crossing Imperial Blush with the large, heavy textured white varieties. I had a hint of this when a seedling of Imperial Blush bloomed for me last spring.

The breeding of a large white from the old pallidas seemed to be very confusing, not only the color being a recessive but size also. So I conceived the idea to breed a large white from the intermediates. The pumila x Amas hybrids proved to be entirely sterile with the tall bearded, but a chance seedling from these was fertile both ways. I crossed it with a large and tall Lady Foster seedling and secured a small percentage of white varieties, ranging in height from 30 to 36 inches, and in size from medium to very large. One of these, Oriana, is a pure white of fine shape and substance, but only medium in size and height.

IRIS CHROMOSOMES (Continued)

J. C. Nicholls

SIBIRICA SECTION

Orientalis Thunberg, sibirica L., and sibirica orientalis have 28 (14"). Wilsoni has 40 (20").

Japanese Section

Kaempferi Siebold, K. S. Hortensis and K. S. Spontanea have 24 (12'').

LAEVIGATA SECTION

Acoroides Spach (pseudacorus?) and mandschurica 34 (17"). For pseudacorus L., Simonet found 34 (17") but Strasburger, Miyake and Longley all give it 24 (12"). Kazao found 32 (16") for laevigata Fisch.

Versicolor. Per Longley: 72 (36"), 84 (42") and 105 (44"–17'). Simonet reports 100 plus or minus (56"-??) and the same for virginica.

Spuria Section

With 40 (20") are aurea Lindl. and ochroleuca Linnaeus. With 44 (22") are musulmanica Fomin (halophila?), ochroleuca Shelford Giant, spuria L. and spuria alba. With 34 (17") is graminea L. Spuria Maritima probably has 44. Guignard found for desertorum (halophila?) 16 bivalents and "some" monovalents. Simonet reports 28 (14") for desertorum Hort.

EVANSIA SECTION

Cristata Ait. 24 (12"). Gracilipes 36 (18"). Japonica Thunberg 54. Milesii 13" with some monovalents. Tectorum Maxim 28.

ONCOCYCLUS SECTION

Acutiloba, atropurpurea Baker, hyrcana, iberica, Lortetii Barbey, paradoxa, Sari Schot., schelkownikowii, soforana Foster and susiana Linnaeus all have 20. Delaunay noted some monovalents at division in five of them.

REGELIA SECTION

Hoogiana, korolkowi Regel, korolkowi concolor, leichtlini, stolonifera Maxim and vaga Foster all have 44. Simonet found korolkowi violacea to have 22 with some monovalents at division.

RETICULATA SECTION

Dr. Randolph found 17 for histrioides. Delaunay reports 20 for reticulata with some monovalents at division.

Juno Section

Bucharica Foster 22. Orchioides and sindjarensis, 22 with some monovalents. Caucasica 18 with some monovalents.

XIPHION SECTION

Juncea Poir, Spanish, 32. Lusitanica Ker-Gawl Sp., xiphium L. Sp. and xiphium Praecox Sp. all have 34. Tingitana Boiss Sp. 28 (14"). Winogradowii Eng. and xiphioides Ehrl Eng. have 42.

Various. Section in Parenthesis

Fulva Ker-Gawl (fulva) 42 (21"). Ensata Thunb. (ensata) 40 (20"). Ruthenica Dryand (ruthenica) 100 plus or minus. Unguicularis (ung.) 38. Foetidissima (scar.) 40 (20"). Sisyrhinchium (gynandiris) 24. Tuberosa L. (Hermodactylus tuberosa Mill.) (gynandiris) 20. Sabbiflora (?) 40 (20"). Zwanenburg (pogocyclus) 42.

In briefing the chromosome data from the tables, exceptions, explanations and some other details have been omitted. Also, we are unfamiliar with and quite uninterested in some of the Irises named. Any inaccuracies of transcription due to those causes probably have no significance.

COMMENT

REGELIA SECTION. Does the existence of a 22 chromosome variety, korolkowi violacea, indicate that the others with 44 are, or once were, tetraploids?

Here are some of the crosses referred to at the beginning of this article as giving unexpected first generation results.

Reichenbachi yellow \times Blue Boy. Ivories, ambers, yellows, purples. Good.

(Gaudichau × Alcazar) × Reichenbachi orange. Brown purples, pale yellows—Maygold, deep yellows, very deep yellow—Crysoro. The parent hybrid is tall and large blackish purple.

Reichenbachi orange \times record lost. Whites, creams, yellows, purples and a miniature Gaudichau. Small blooms, branched, 16", and fine.

Kashmir White \times Gold Imperial. Tall beautiful whites with very weak stems. One mauve.

Kashmir White \times Dominion. Tall, large whites, mauves and ambers. Good.

Kashmir White \times Yellow seedling. Tall and beautiful whites, one rated 88 by Judges.

Mme. Chereau × Shasta. Tall whites and mauves. Fair.

Seminole × Shasta. Tall white with hint of salmon pink.

Dr. Ford P. Rogers, of Fairmont, West Va., is producing some very interesting seedlings. Here are two that he reports:

 $Florida \times L. \ A. \ Williamson. \quad Variegata, \ whites, \ creams, \ yellows, \\ two \ very \ deep \ yellow.$

(Cyanea×Florida) × Amas. All large yellows, one with greenish cast like Doxa. The parent seedling is a purple Dwarf.

Moon Magic, Phosphor, Dune Sprite, Micheline Charraire and a number of others could be included. We have had others of this kind.

As before stated, we are informed that the cause is probably the presence of a "dominant inhibitor factor" in the mates carrying the white or yellow.

None of us can or would care to put our seedling work on a cut and dried basis but it adds interest to know as much about our subject as possible. Additional chromosome work is needed on some of the key Irises of the newly found American native Beardless. Besides fulva, versicolor and virginica (?), already examined, it would be well to make determinations for Giganticoerulea, Elephantina, Regalis, Rhodantha and others. They are beautiful, seem to thrive here and have a wider color range than the Bearded Irises. Two different deep vermilion ones bloomed from early August well into September in 1932.

PARENTAGES. Most present growers of Iris seedlings of consequence register parentages and those who do not, have supplied them on request. Concealment probably loses sales and any ex-

perienced hybridizer can inspect the "blooming" plant and come close enough to its parentage to serve his purpose—if any. For those reasons and because we like to feel as though we are at least trying to promote Iris progress, we register heredities and give those of the seedling fields. Also, we feel a little better if we give credit to another hybridizer for furnishing a good parent.

At first we made many exploratory crosses and, from two of the most unpromising, obtained the two of our introductions which rate highest. Thoughts of these and of many other circumstances of our work act as a good sedative when we feel inclined to become too cocky over some success, planned or not. In eight years, we have learned many things but others have probably learned more. With these chromosome numbers and our seedling records at hand, we could write pages of interesting results from different crosses in connection with the numbers, speculation, conjecture and hopeful prediction for further action; but again, others can do that better for themselves and we will not presume further in the matter.

IN PRAISE OF THE JUDGES

J. C. NICHOLLS, JR.

It would seem only fair that a few words of praise be uttered for the much maligned Judges and their efforts of this last season, for they surely deserve it, and what, pray tell, would we do if they decided it was not worth the effort, and rated no Iris at all?

Personally, I was very glad to see the long list of ratings, and consider the single ratings, as well as the rest, very valuable information; simply not to be accepted as final, of course.

Not being an accredited judge myself, I can speak from a layman's point of view. As I watched six of the Judges at their work last Spring, often out at 5:30 or 6:00 A. M. to catch the blooms at their best, and then working through the long, hot, dry, tiresome day, stooping, kneeling, standing, racking their brains to pass fair judgment on one Iris after another, trying faithfully to not let new acquaintance nor enthusiasm bias their opinion in a favorable direction, just as they tried to avoid being prejudiced against some highly touted newcomer that was only mediocre, I

wondered where they found the ambition and perseverance to carry on through the whole long Iris season.

I could not help but admire them and be thankful that the Society had such tireless and willing workers who would so devote their time and energy (and plenty of both, at that), not to mention the actual cost of their trips all over the country to visit different gardens. To be out in that hot sun, making careful analyses of Irises, until they were ready to drop from both physical fatigue and mental strain, was certainly a most tedious and trying task.

And I thought of the pleasure with which the members of the Society would greet the long list of Irises that had been rated, realizing how nobly the Judges had responded to Mr. Wister's call to do their best and cover as much ground as possible. It was certainly to be expected that the Judges would be given publicly a vote of thanks for their fine work.

But instead of praise and thanks, every one seems to be hastening to criticize and condemn them, as though they had wilfully shirked their duties, maliciously perverted their ratings to discredit Irises, and deliberately refused to give a great number of Irises more than one rating.

And, finally, the decision has been made (due to these criticisms), to throw out and refuse to publish the ratings on half of all the cards sent in by them (for Irises rated by four or less judges comprise half the cards turned in).

Is half of all that hard work in the hot sun and long, endless days of the blooming season to be deliberately thrown out, and given no recognition whatever? I can think of no better way to discourage the Judges and make them unwilling to spend their time and energy than to tell them at the start of the season "Half of all your hard work, half of all the ratings you send in, will be absolutely wasted."

I would like to take this occasion to thank the Judges for their hard work and cheer them onward to just as much effort this next year, with the certain knowledge that each successive season will see a wider field of Irises covered more thoroughly than ever before. And I am sure there are many others of us who really appreciate their work and the impossibility of *every* Judge rating *every* Iris in one short season.

ON BECOMING A JUDGE OF IRIS

Dr. F. M. Hanes

Last year, Mr. Wister, with the landscape architect's eye for latent possibilities in the most unlikely places, appointed me an official judge of the A. I. S. This astounding news was carefully kept from my wife, for, probably with good reason, she had come to the conclusion that I was afflicted with the serious malady known as "dementia iridae." Official recognition of my pitiful state would probably (so I thought) be the last straw.

One cold evening the past winter, with a fire on the hearth and a trying day's work behind, I decided to get out the Iris books and catalogs, not forgetting "The Genus Iris," which, in its folio splendor, gives an air of scientific seriousness to what we all know is just pure unadulterated dissipation. What if I had done this same thing a dozen times before! There are people who derive pleasure from going to the "talkies"; then why should one be at all furtive about reading for the thirteenth time the highly imaginative literature of the catalogs! Such things are difficult to explain, however, to one who isn't afflicted with "catalogitis."

My wife was busily engaged with that week's cross-word puzzle in "Judge," interrupting now and then to ask me for an absent-minded opinion on this word or that. I had just gotten to Mr. Donahue's ecstatic description of "Polar King." "Might be called a White Mrs. Valerie West—in 1929—called a White Gaudichau—not enough—bloomed in Fall." (What this Iris was called in 1930 is tantalizingly not stated; probably a White Deputé Nomblot). I was transported. "Such imagination!" I thought, "Such exuberance of language! Jules Verne and Lord Macaulay could not have done better in close collaboration!"

"Give me some three-letter words beginning with W and ending with Z, and I will not interrupt again." This from the crossworder.

"My dear," I began (and perhaps there was a shade of petulance in my voice), "I do wish you wouldn't waste your time on those abominable cross-word puzzles." "I suppose I should be reading Iris catalogs?" was the unaccountable reply.

Some retort was obviously demanded of me. My position as a serious student of the genus Iris was being sadly undermined. I determined to bring out the heavy artillery! "My dear" (all withering speeches between man and wife begin that way), "please allow me to inform you that I have been appointed an official judge of the American Iris Society. In future please be good enough to express no opinion on Iris to visitors to the garden without first consulting me." The effect of this speech was not as devastating as I would have desired. A long silence ensued. And then in the most dulcet and cooing of accents came this last question: "Do you happen to know a five-letter word beginning with C and ending with azy?"

An Iris season has come and gone since then, and I humbly confess that a more careful consideration of the connotations of that five-letter word would have saved me much mental perturbation. Being an Iris judge in the winter is so different from being one in the spring! How on earth does any one ever judge an Iris? One memorable morning I found Meldoric and Elizabeth Egelberg in pristine bloom. "Now here are two things of absolute perfection," I thought, "I rate them 100%." And Clara Noves! And Rameses! And Melchoir! And Cooley's Surprise! And Klamath!—all 100 per centers. Obviously this wouldn't do. But why not? So then it dawned on me that an Iris judge must be a mean fellow who goes snooping around looking for defects. What a horrid point of view! Must I be condemned for the rest of my life to approach all Iris with a sneer on my face like the dark villain of the Mid-Victorian melodramas! Must I stand in wonder and rapt admiration before Mr. Mead's "Eros," and then remark coldly (to myself), "Fine, but too much space between bloom and foliage." Or of "Blue Velvet," that it lacks the golden beard that would relieve its sombreness, and, therefore, I must mark it 99 and Meldoric 100. Heaven forbid! No! leave me my untutored, uncritical illusion. Let me believe that all truly beautiful Iris rate 100 per cent!

OUR SCORING SYSTEM

S. R. Duffy

Concerning criticism of the 1932 ratings printed in the January Bulletin, it might be well to say that the members of the committee on awards are fully as well aware of the imperfections of the scoring system as are the critics, if not more so, having lived with the problem continuously for more than a year.

Chief criticisms came from breeders and dealers, while the ratings were made up principally by amateurs of the buying public class. Therein is some clash of interest. As previously noted the factor of outstanding quality has aroused the most criticism and it has been abolished in the new trial score for 1933.

It admittedly is impractical and unscoreable at present because no judge knows or can be expected to know all of the Irises in commerce. Therefore no judge can accurately say whether a new Iris is distinctive from and superior to other Irises in commerce. The best he can do is to rate the Iris as either distinctive or not distinctive, having superiority or having no superiority to the best of his knowledge, which is necessarily more or less, limited.

However, the factor of outstanding quality, imperfectly scored though it may have been, served a valuable purpose in permitting the label to be placed upon seedlings introduced at high prices which were duplicates or duplicates in effect and no better than other Irises in commerce at much cheaper prices. These ratings should serve the valuable purpose of warning breeders not to have twins, triplets or litters in an Iris way and try to introduce them at high prices when they are not needed and add nothing to the list of Irises already in commerce.

The committee on awards is anxious to find some means whereby these duplicate and not needed Irises can be indicated both in the score and in the awards and it is a difficult question. The breeders of wide experience introduce far fewer Irises than those newer at the game and their introductions usually have a valid claim to the attention of the Iris world as being distinct or superior in some respect.

Judges who refused to give any part of the 15 points for outstanding quality to Irises they knew were not distinct, different or superior to other Irises in commerce, gave proper estimate of the value of these Irises as novelties and new introductions. The unfortunate part of it was that a first-class Iris as good as another in commerce of the same coloring was made to look inferior in quality. It is certain that we do not need half a dozen Dauntlesses all so much alike it would be well nigh impossible to tell them apart even though all were of as high quality as the original Dauntless. While perfectly good Irises, they are not needed as commercial propositions.

In looking over the list of high and low ratings quoted by Mr. Wayman—the precedent for showing the range of the ratings having been set in the first symposium, the writer discovered that he had turned in a score card on one of them, Red Radiance. This Iris may serve as an example of how the ratings operated and what they meant.

The high rating was 89. The low rating was 65. My rating was 69. One judge refused to rate it at all merely turning in a score marked "Not Needed." The committee on awards has voted that recommendations without scoring figures either for or against an Iris in future shall be ignored.

The high scorer gave Red Radiance 14 points for outstanding quality. The low rater and myself did not believe it was entitled to any credit whatever on this count. It so happened that we both were familiar with Waconda, Joycette, Dauntless, Indian Chief, Numa Roumestan, Deputé Nomblot, Red Dominion and other red toned Irises. I rated Red Radiance blooming in competition with these Irises and unhesitatingly say now as I did in my score card that it has no distinctiveness of color, form, substance, texture, stalk or vigor of growth that I can discern. It is no better than these other red toned Irises.

Yet, had I been entirely unacquainted with these other red toned Irises I should have regarded Red Radiance as a top notcher and it is really a first-class Iris good enough for anybody's garden. But being so close to a duplicate of these other Irises, how could it be otherwise rated as to outstanding quality except 0.

The low scorer made this note on the back of the score card, "Would rate 80 if it were not so close to other Irises of its color

and no better." The low score was a truer valuation according to the 1932 score card than the high score.

No such distinction can be made under the 1933 score. The Iris will be scored for precisely what it is, regardless of the fact that it may be a twin, a triplet or one of a whole litter of closely similar Irises, one no better than the other. The newest one will be the highest priced. The buying public is entitled to some protection in this matter. The dealer also needs it as the dealer takes heavy losses in buying new Irises that turn out to be gold bricks. The breeder of the original type deserves reward for his work.

How is this to be done? Instead of belaboring the judges who have at least shown themselves thoroughly consistent by picking the Irises for the 50 best lists that they gave the highest scores, suggestions for improving the score should be made. And in this connection I do not hesitate to say that if all the Irises in the 1932 rating list rated at less than 70 whether by one judge or more should be abolished there would be no irreparable loss and none to cause any great grief.

As to the contention that the opinion of one accredited judge is worthless, that is bad mathematics. If one rating is worthless, the summation of five, ten or more all worth nothing amounts to nothing as the summation of zeros can give nothing but zeros. You can get trick results by dividing something by nothing as in the old algebraic proof that two equals one but adding nothings gives nothing. If the theory is that an individual judge must have moral or immoral support to make him worth while, I regard it as untenable. An accredited judge is accredited because his opinion is believed to be worth something. If it is not, he should not be accredited. And I know certain judges the opinion of any one of whom I would accept rather than those of ten of whom I knew nothing, no matter how they averaged.

The criticisms directed at the judges more properly should be directed at the score system because the score system made wide discrepancies in judgments and perfectly sound judgments, too, inevitable. The new scoring system should result, if followed faithfully, in more consistent ratings and far less differences in value between the high and low scores. But it will give no indication whatever as to whether or not a new Iris is really something new and better. We must depend on that for the notes of the

judges who are hereby urged to make copious notes on the back of the score sheets.

The committee on awards is endeavoring to reach a workable scoring system both for exhibitions and seedlings. Many suggestions have been received and more are solicited, all of which will be considered at a meeting of the committee to be held in Freeport during the annual meeting. The test of all suggestions is, will they work?

If it is necessary to live with an Iris to be able to rate it, it is also necessary to live with a scoring system to understand it and operate it. Yet people get married and get to understand each other so well they can't and won't live together.

COMMENTS ON RATINGS

RALPH G. VAN NAME

The proposed "Score for 1933 Trial" seems to me to be vastly superior to the one used this year. If it works out in practice as well as it looks on paper it will certainly be a great improvement. There is only one thing that I miss in it and that is a specific mention of the placement of blooms on the stalk. I suppose that it is intended that this shall be included in the ten points assigned to the stalk. I note that the letter states that an increase of Stalk at the expense of Garden Value has been suggested. I should be in favor of assigning 5 points under Stalk to placement of blooms, and if this were regarded as giving too little value to the other features included under Stalk, I should be quite willing to see the total credit for stalk increased to 12, 13 or even 15, at the expense of Garden Value.

I have been gradually coming to the conclusion that if fixed points had once been established, it would be not only possible but practicable to regard a mark of 100, not as a dead line which could not be crossed, but as something which might be attained and even passed in the future if the improvement in Irises continued. We might have, as at present, a scale of points adding up to 100, but we would also have, if standard ratings had been established, certain Irises which had been given in these ratings the maximum number of points in certain categories, as specified on the 100 scale.

Let us say that on that scale, as at present, Form was allotted 10 points, and that certain Irises had been officially given 10 points for form. The change would simply mean that a new Iris, distinctly better in this respect than the ones just referred to, might be given 11, or if justified, even 12 points for form, the latter mark implying of course, an improvement of roughly 20 per cent. The advantage of this, of course, lies in the fact that neither the scale of points (adding up to 100) nor the rating of any given Iris would be affected by the improvement in the quality of Irises in general. Perhaps this is something like what Mr. Sturtevant had in mind in advocating (p. 50 of the last BULLETIN) the gradual deletion of the figure 100 as a mark of perfection. It is a modification of the system which I mentioned, but one which I think is distinctly more practicable, especially as it could be adopted gradually.

It is true, of course, that we could abandon 100 as a mark of perfection without at the same time establishing any standard ratings, but I am inclined to think that the system would in that event become too elastic for comfort, or for satisfactory results, and that the marks of different judges might diverge even more widely than they do at present. I am fully aware of the difficulty of the task of establishing standard ratings. It is one which only a very self-sacrificing committee would be willing to tackle. But fortunately we have that kind of members, and if the officers of the A. I. S. should decide that it was desirable to try the experiment, the ratings would be made.

AN IRIS SEEDLING COME TO JUDGMENT

In the year 1928 there came to bloom in the garden of an humble Iris seedling grower, a flower to behold. Its producer, a person of some success in Iris breeding and a judge of some experience, was impressed by the beauty and novelty of the flower. Another person, also a producer of seedlings of recognized merit and a discriminating judge, was called in to see the fledgling. There was loud acclaim and enthusiastic comment.

Came the fulsome year of 1929. The plant bloomed again and in greater glory. More enthusiastic comment.

Came the doubtful year of 1930. The plant, nothing daunted by impending economic tragedy, bloomed in fuller glory. A visit-

ing Eastern judge of National fame exclaimed over its beauty in the grower's garden. A few roots were distributed into strategically located gardens, for its producer cannily (?) saw visions of fortune, fame and awards.

Now was the die cast—the stage set.

Came the clouds and storms of the depression year of 1931. Again this Iris bloomed—in its new homes—sometimes goodly—sometimes fairly. In a famous middle western garden, the one year old plant bravely cast up its single spire of bloom. A greatly renowned Middle Western judge came to see the flower in its newly acquired home. He judged harshly, publishing his harsh comment through official channels. In this same gloomy year of 1931—there came to the producer's garden a group of famous Iris folk—one from Indiana—one from Ohio, one from Pennsylvania, one from New York and another from Connecticut. The Iris blooming there was duly submitted to this august jury. The verdict was favorable—though unrecorded and unpublished.

With such expressions of approval to back his judgment, the producer set out to "sell" the plant to distributors. The future lay in the lap of the gods.

Came the dire year of 1932—the Iris in distribution—the curious over-warm 1931 winter—the hard March freeze when all early spring things were burging into active life. This Iris bloomed in many gardens and in many ways and manners. On the producer's established plants the bloom was below its usual glory. But hear the comments of the high judges from the four corners of the land:

- (1) Indiana—"I like neither its form nor color."
- (2) New York—"I rose early to see the new bloom. It is perfect."
- (3) Illinois—"I am thrilled with its majestic beauty."
- (4) Pennsylvania—"Why did you impose on the suffering Iris world this piece of trash?"
- (5) New York—"Never fear it will be a great Iris when many of the present famous ones are forgotten."
- (6) Pennsylvania—"It backs its ears like an angry mule."
- (7) Tennessee—"It is a subtly beautiful Iris."
- (8) Massachusetts—''I refrained from sending in a rating because the form was poor, but I believe that the established plant 'might' do better.''

(9) Illinois—"An excellent Iris—one of, if not the best, in its color class."

This is the true story of an Iris seedling lately introduced into commerce. The story was deemed interesting and amusing in the light of the discussions on judging and rating, which are now engaging the attention of the Iris folk.

An attempt is made to keep the name of the variety unknown and the names of the several judges anonymous, as their opinions as here expressed were not written for publication or rating purposes. In the list of new ratings just published, this Iris received a large number of votes and the average given was above 80.

The notes of judges and good observers, made during their excursions into blooming Iris gardens, are among the interesting items of the Society's bulletins, but one wonders if a day, or even two or three days of casual observation qualifies a judge to "hand down" a correct decision on the merits or demerits of an Iris so seen.

The future of an Iris seedling is often fixed by the hasty opinion of some judge. The fact of prejudice or inspiration is relatively more true when the judge is an official of the society or a particularly well known person in the Iris world. One might wonder if Iris W. R. Dykes, Iris Dauntless or Iris Pluie d'Or would have won medal awards if they had been introduced in the face of a well known judge's published criticism.

It is difficult to see how the Iris Society could adopt a more fair or meritorious scheme for making awards. One might wonder, however, if ratings should be made so positive or definite. It might be well to have a broader classification such as A-B-C-D, etc. "A" to indicate a variety of outstanding merit and "D" to indicate a variety worthy of discard.

The writer was an early advocate of the rating system, but now sees danger in a judging system that expresses such definite fixed value. The recent ratings published show that many original ratings were hasty or incorrect, even when due allowance is made for improvement or advancement of type. The opinion will be ventured that at least one-half of the varieties which have received some type of special award at the hands of the Society, are almost completely unknown today. Does not the evidence of these facts prove that our judgments have been hastily and inaccurately made.

Certainly an Iris which rates a medal award, or an H.M. or A.M. should be retained in active commerce for a long period of time. As a matter of fact some of these very Iris have disappeared completely.

1933 ANNUAL MEETING

S. R. Duffy

The annual meeting of the American Iris Society at Freeport, Ill., and the national show conducted by the Freeport Garden Club together with the magnificent display in Mrs. Douglas Pattison's beautiful Quality Gardens made the events a most happy combination.

Mrs. Karcher, a master hand at staging shows, as she has so frequently demonstrated at Freeport and at the big spring flower show in Chicago, had a fine show which moved like clock's work. With her fellow members of the Freeport Garden Club, there is an organization that can put on a show almost perfectly and ideally managed.

A scorching heat wave and a season that forced the blooms unduly made the assemblage of a show more difficult than usual, yet there was the usual beautiful display. Mrs. Douglas Pattison's big display of the newer Irises in huge baskets again was the striking display of the show. The seedling class had a number of entries but nothing of note in it.

The Sass Brothers brought a large quantity of bloom from their Nebraska farms but, owing to the record heat wave which necessitated cold storage, they were unable to bring more than a small percentage of them through and consequently could not make the adequate showing they desired. Enough of their Irises survived the heat and trip from Nebraska to give an idea of the tremendous advances they have achieved.

The annual meeting brought representation from eighteen states with five regional vice-presidents in attendance. Geographically the representation extended from Mrs. Essig (California) to Mrs. Tobie (Maine) and from David Petrie (Idaho) and Bob Schreiner (Minnesota) to Mrs. Scruggs (Texas) and Mrs. Bachman (Georgia).

The five regional vice-presidents were Mrs. Bachman, Mrs. Scruggs, Mr. Petrie, Mr. Schreiner, and Mr. Snow.

The annual meeting was brief and devoted to talks by a number of the members, the officers and others. It was preceded by a meeting of the board of directors, those present being President Wister, Mr. Morrison, Mr. Sturtevant, Dr. Everett, Mr. Jacob Sass, and Mr. Duffy, an even division, territorially.

The directors elected Mr. Morrison secretary of the society to take office January 1 and referred the rating question to the committee on awards to report as to whether it should be continued or modified or discontinued.

The banquet on the evening of Saturday, June 3, was an unusually pleasant event, the speeches being delightfully brief—it was a hot night. They were in the nature of a symposium led by Mrs. Waters, of Cincinnati, Mrs. Karcher presiding.

Mrs. Pattison's garden was thronged with visitors during the week and over the week-end. Many fine new Irises were on view, noteworthy among them being Dr. Ayres' Coralie, a beautiful new blue from Mr. Grinter, some fine yellow seedlings from Dr. Loomis, and the last seedling put in commerce by Mr. Williamson—Trail's End, a beautifully colored Iris which might be indicated as a deeper, richer Mary Geddes in general effect. Dr. Ayres' Burning Bronze excited much attention.

Cayeux had a new giant of imposing beauty, Directeur Pinelle, and a variegata, Vision, that in clear yellow standards and clean contrast of standard and falls, size, height and branching seemed the best of its type shown in this section.

Eclador, the French Dykes medalist, was too late for the majority of show visitors as it did not unfold fully until the Monday after the show, a gorgeous thing of Nebraska type, almost velvety, huge and with a fine stem.

AT FREEPORT

R. S. STURTEVANT

To one who has had but one day with Irises in Massachusetts and then leaves on May 30th in an Austin car for the Show, the Irises in Freeport certainly seemed magnificently grown. An impression which, of course, was heightened by a delightfully cordial welcome from Mrs. Karcher despite the fact that she was super-

vising the last minute preparations at the Show. Though her committee must have been most efficient it was with a word here and there and everywhere that she maintained the pleasant schedule of judging, of luncheon, director's meeting, annual meeting, and banquet with its all too short words of wisdom from many mouths.

The Show suffers from artificial lighting and perhaps even more from the fact that neither Mrs. Karcher or Mrs. Pattison entered competitive exhibits. The first was undoubtedly responsible for a large pool where water lilies remained open night and day while the latter staged a gorgeous array of baskets in addition to a welllabeled group of all the novelties. I frankly hate baskets of Irises but for once each flower was perfect, each arrangement a mass without being a mess and the varieties—well, twenty-five to forty stalks of Mrs. Valerie West and Pluie d'Or and such-like are a revelation of wealth even in these days of low prices. The Sass seedlings had been in cold storage that was too cold but even then a set of Wambliska progeny suggested promise. The competitve classes were far less good than the commercial displays and erred, not in selection of varieties but in condition—a marked disappointment. was a real disappointment not to have a stalk of Marquisette from Mrs. Pattison eligible as the finest stalk in the show.

Mrs. Karcher's garden with its pool and shaded seats, its bit of wild garden and small area of satisfying varieties of Irises was pleasant even on the hottest of noons one could imagine. Hunter's collection of evergreens was of especial interest to me as a landscape architect and as Mrs. Pattison's Irises need no acclaim I will venture to express the opinion that it is not a place to rate Iris. To do this fairly one must have both the good and the much less good for comparison and where everything rates (or has rated) over 85 judgment is apt to be unsafe. One can compare the relative redness of Indian Chief, Dauntless, Joycette, Ethel Peckham, of Burning Bronze, Red Radiance, Red Robe, and others but I would prefer putting them in class A rather than to try to rate them 89, 90, or 91. Things like Coralie, Easter Morn, or Ethel Peckham and their relatives were clearly not at their best—I suspect the freeze caught the terminal buds back in the winter but I would vouch for their excellence even if I had not seen any of them better grown. The newer so called yellows (for the most part the color of American cheese with a tinge of green) I frankly dislike. I didn't realize there was such a thing as a cool yellow but it is

there I would place the perfect form of Desert Gold, Moon Magic, or Phosphor and the lesser lights Chromylla, G. P. Baker, or Goldilocks. Gilead proved a lovely warm buff and Alta California a bit deeper and cooler while Eclador is exactly the color of W. R. Dykes in garden effect and I care little for either despite their excellent qualities.

The thrill of an annual meeting, however, is neither the meeting nor the Irises but the people one meets and meets again. Dorothy Stoner, Robert Schreiner, and Jesse Nicholls were the hilarious youthful contingent with occasional assistance from Mrs. Roe. Mrs. Waters, Mrs. Snow, Mrs. Bachman, and Mrs. Scruggs represented the power of the garden clubs while Duffy and "Harry" O'Brien upheld the printed word, and the famous brothers, Hans and Jake, measured up to the ideal of a breeder's point of view.

This is no official report of either show or meeting, it is merely an overflow of a grand time made memorable by a handful of our members headed by Mrs. W. L. Karcher.

VARIETAL NOTES

To concentrate attention upon the Lowly Anns among Irises has proved so difficult that the editors have, perforce, fallen back upon their own experiences.

aphylla var. Hungarica is a lovely rosy purple smallness with slender stalks. It branches from close to the base and carries three to four blooms, nicely finished and set off by blue beards. The plant is striking in bud as the spathes are quite a deep red-purple tone.

BALROUDOUR (Sass, J.) a charming newcomer to the ranks of the Lowly, a beauty in tones of blue and tawny gold. One of the delights of the Spring garden.

BLUE MIDGET, DB, (Nes.) a bluer purple Black Midget and as delightful in its poise and carriage-rare qualities among the big flowered dwarfs.

BLUE TOPAZ (Sass, J.) is a lavender blue self with a maroon splash on the falls and a green midrib. There is a green tint to the style branches which gives the flower a very cool appearance.

cristata PEARL WHITE (Nes.) well named for its pale loveliness.

GOLDEN IMP (Don.) Late flowering, the deep yellow (greenish a bit) flowers well proportioned to the 15–18 inch stalks—free flowering.

[74]

GOLDIE and I think it was Golden Lady were unintroduced seedlings I found at Mr. Boehland's at Rockford—the one a miniature Honorabile, a lovely mass of perky brilliance, the other too tall for its flowerlets which carried horizontal falls washed with blue. Both were late flowering.

GRAMINEA (Bon.) is one of the best of the dwarfs of kochii coloring. The flowers are of a smooth texture, brilliant gold beards adding to their beauty.

PUCK (Sass, H. P.). One of the finest of the newer dwarfs. It is close to Graminea in garden effect but freer flowering.

ROSE MIST (Sass, H. P.). Almost a lilac self, ten inches in height.

SABRINA (Cap.). A very early, very pale blue gem the coloring of the true I. pumila azurea, but huskier in growth, and also less clumsy than the hybrid "Azurea" or Cyanea.

SHADOWLANDS, DB, (Nes.). A rich bronzed purple, its red tone suggestive of Raj (Sturt.) which I did not see this year.

THISBE, DB, (Dykes) is a very dwarf, very pale blue self, the last of the small bits to bloom in early May.

TID-BIT (Sturt.). An excellent medium lavender self for massing; 12–15 inches.

TONY, DB, (Sass, H. P.). A good dark but not memorable.

YELLOW TOM-TIT (Sturt.), a vivid yellow counterpart to Tom-Tit than which no variety is lovelier for cutting.

YLO, DB, (Sturt.). As I have seen few of the Sass dwarfs I still consider this unique in its deep yellow with flaring falls which give a butterfly effect.

I am looking forward to the Longfield list of "Table Iris," late flowering, well-proportioned miniatures in varied colorings, including blue and white. Among the really tall I thrilled over Columbine, a globular, frilled little white—well-named—as it would be most fitting planted with the Aquilegias.

In the new range of 18 to 28 inches, intermediate height, one is at a loss as to what to include and risks much in that the originator may consider it an insult to have one of his favorites so listed.

WHITES. The old La Neige and White Knight, of course, then add Elfin Sprite (Mor.), White Nymph (McK.) and John Foster (Wal.) which is really a bit earlier and lower. All carry many blooms and many of them in very fair proportion to the height of the stalk.

PLICATAS and AMOENAS. I know of none that surely belong and are not too large or too poorly branched, too shy or too something to really please. H. L. Crandall is a possible exception. The

plicatas tend to have pallida blood and modified height, and the amoenas the clumsy stalk of a variegata with too small blooms. Victorine used to be a favorite blue and white but it is a bit large for grace.

VARIEGATAS I care little for and all those of a previous vintage fit our definition as to height—a few are enough for garden effect.

YELLOWS. Any that date before Shekinah (1917) are eligible and I think Flutter-by (Sturt.) for light, and Cockatoo (Mor.) or Elfin Gold (Mor.) for dark would just edge in (under most conditions) under the 28 inch limit. They are outstanding in garden effect and each stalk is of almost perfect poise. Inner Glow may belong here and there was an earlier ivory, Dawn (Yeld), that I have always liked for its smooth finish.

LAVENDER SELFS. A lot that are intermediate in bloom revealing cengialti blood—in appearance small pallidas from the lavender tone of Sapho to the dark purple of King George. Mrs. Alan Gray is the typical lilac of the group and should still find a place in every garden. Of the late flowering, Tom-Tit and Tid-bit are the only ones I know, though the very late Tintallion (Sturt.), with just a flush of lavender tips to the petals, is one of the coolest effects for hot June. Parc de Neuilly is hardly surpassable in dark mass.

LAVENDER BICOLORS. Many lack velvety falls and I prefer the marked contrasts of Monsignor with its cone of standards, Black Prince or Dominion, the very late and dwarf Richard II. Of really blue-tone are Chester Jay Hunt and the darker Du Guesclin, which carries the tone of the much heralded Blue Banner. Among novelties I would include Lady Lavender, Stratosphere, and Dutch Beauty, all lovely things and possibly low enough.

PINKS to REDS. Her Majesty (rose), Wyomissing (flesh) and even Windham compare most favorably with things like Caroline E. Stringer. Quaker Lady probably belongs here and possibly Seminole, and most certainly the magenta Caprice and the blended Circe and Merlin.

BLENDS. For light effects try the old Sass plicatas, Lona et als; try Cameo; and for darks, the old "squalens" group gives dirty things with only an occasional clear color. I fear to tread on toes if I mention newer introductions but I have seen all too many that are top-heavy with their clumsy blooms and crowded branches.

One hesitates to speak of newly planted varieties, especially of Louisiana hybrids, but I really want the only two of the Washington seedlings I have seen. Both Appalachee and Taskona are, I suspect, from I. fulva, the first a very rich bronzed red, the other paler than its parent but both with that really indescribable tawny orange hue.

albicans is a short branched, free flowering Iris of heavy texture. The flowers are smooth and of quite good form, and of very clear whiteness, the white beard being yellow tipped.

ALICE HORSEFALL. Quite distinct in color among the May flowering intermediates. The flowers are large and of rich color—velvety dark red purple—with a brilliant gold beard.

CHALLENGER is a very dark purple of splendid habit. The quality is exceptional and the form of the flowers very pleasing.

CYRUS, in paler tones of yellow, ranks with Nymph in garden value for its season of bloom. The color is deepened on the blade by an apricot overlay. Nicely branched with the blooms well placed.

CRYSORO is a very deep yellow of fine substance. The stalks are slender and widely branched, the plant free flowering.

DOXA is a blend of quality that combines beautifully with the clear colors among the Tulips.

GOLDEN HARVEST. A pale yellow, very free flowering and of rapid increase. It blooms both Spring and Fall.

GOLDEN WEST. Very deep yellow self, the color of Crysoro but of different form. It opens two or three days after Nymph and blooms over a long season, throwing many flower stalks.

HELOISE. A blue purple self of splendid form and quality, carrying three blooms to a stalk.

MAYGOLD. Soft, pale yellow, the flowers large and nicely placed. It is quite fragrant and is nice for cutting as well as a valuable addition to the yellows in its season.

STARLIGHT is pale yellow with a green tint. The stalks are slender and branched. It appears to be free blooming.

ULTRA. Another of the Spring and Fall bloomers of outstanding value. It is a deep, clear blue bicolor, quite distinct from others of its season. The flowers are of medium size, of fine substance with horizontal falls.

? ? ASK ME ANOTHER ? ?

Iris can be transplanted any time the ground is not frozen but an increasingly large number of growers in the north are coming to regard the period soon after flowering as the most favorable time for digging. (Just before the Fall rains seems the approved time in the South.—Ed.) We have found the plants dug in dry weather seem less likely to mildew and the rhizomes remain firmer than is the case with plants dug during wet weather. Such dried rhizomes will retain their vitality for a year or more.

The sunnier the location the better. Because of the infinite complexities of soils, chemically, physically and biologically, and their many variations, general formulas for soil treatment or improvement should be tried out in an experimental way. Bone meal is almost universally used and Ground Gypsum (calcium sulphate) (200–300 lbs. to the acre) supplies sulphur which seems to be a desirable element for Iris and is often wanting or deficient in long-cultivated soils.

The instructions generally given are to plant rhizomes barely beneath the surface or even with the upper half of the rhizomes exposed but this applies to light soils and spring or early summer plantings. Personally we have never lost an Iris by too deep planting and in our heavy soil two to three inches seems as good a depth as any. Plants need not be watered but the soil should be tramped down firm.

Cultivation is a matter of keeping out other plants only and the clumps may be reset about every three or four years and the soil enriched with some well rotted manure (or humus), wood ashes and bone meal. Of pests and diseases only two seem generally distributed. The stinking, semi-fluid mass of the root rot is encouraged by poor drainage, shade, accumulation about the plant of decaying vegetable matter (such as forest leaves and fresh manure) and physical injury and breaking of the plant tissues. It is particularly apt to appear after severe damage to early spring growth by unseasonable freezes. Of the many methods of treatment recommended we find the spooning out of the available tissue and filling

the hole with dry powdered gypsum effective. (Often careful and continued exposure to sun is sufficient.—Ed.) The Iris borer, the minute larva of which eats its way into the freshly grown leaves in the spring leaving an oily streak and works its way down into the rhizome by summer requires individual capture at some stage of its development.

The above recommendations are from the 1922 catalogue of the Longfield Iris Farm but I have had so many questions as to fertilizer when I lecture on Irises that I append a few notes. The chemicals of major importance are nitrogen, potash, and phosphorus of which the potash (the root developer) is the best steady diet for most Irises. Hence fine ground bone meal gives us available nitrate and phosphorus plus much potash. Hard wood ashes are also heavy in potash if of good quality and most seed houses offer special mixtures for potatoes or other root crops which are rich in potash. Such are safe in heavy quantities when the bed is prepared and safe when used as a top-dressing even in three applications of spring, summer, or fall. Special applications of lime or phosphate rock should be made in such localities as these are recommended for farm crops. I know of no tests as to the comparative merits of muriate or sulphate of potash for Irises.

The use of nitrogen (nitrate of soda, aluminum nitrate, sheep or hen manure, and many well-advertised "plant foods") is relatively risky even in careful doses except for Japanese Irises and probably the ochroleuca-spurias, and the new Louisianas. They burn the plants badly if used heavily and as they encourage leaf growth in particular are of little advantage to the garden Irises.

Q. Does the Iris borer ever cause rhizome rot?

A. As the borer chews and thus destroys firm tissue, leaving a slimy mess which can extend to the base of the foliage, root rot often follows in its wake. It is safer to cut off the foliage below the spot where the borer has been working than to remove the borer only. At the same time open the outer leaves gently and remove all frass and moisture that may have collected at the base of the leaf sheaf.

Q. Will rhizomes having no roots attached grow?

A. Undeveloped rhizomes taken off flowered ones directly after blooming season frequently have no roots. While developing they have been fed from the mother rhizome. They will grow as well as heavily rooted ones but should be planted two to three inches deep for anchorage while the roots develop. Old roots serve only one purpose—that of anchorage—unless a plant is being moved from one part of a garden to another only, when it will be out of the ground only a few minutes. Then, if carefully lifted and replanted, the roots showing yellow tips may be expected to continue growth and the others to send out fine feeders.

TID-BITS 31ST

Iris arenaria—Paul H. Cook

I. arenaria has caused me no trouble at all during the three years I have had the plant. I have had it in the breeding patch right along with such dwarfs as Socrates, Azurea, I. reichenbachi, and one or two others, and had about concluded it was one of the easy things to grow. It gets full sun all day; the soil in which it grows is a sandy loam, heavy enough to hold moisture well, and slightly alkaline. I have given the plant nothing in the way of special treatment unless it was a top dressing of leaf mold a year or so back. I remember Dykes said it soon exhausted the soil in which it grew.

Seedlings and Awards—Lena M. Lothrop

We think it is time for the A. I. S. to declare for a particular sequence in the reporting of parentage of seedlings. It was thus the confusion occurred regarding the parentage of Mr. White's new yellow Irises. (Seed parent is always listed first, Ed.)

I can continue the use of the plural "we" in voicing protest against the present system of making awards. Seedlings are produced by breeders and no breeder will cut his only one, or only three stems of a choice seedling (if it will produce pods) to enter for award in a show. The interesting seedling class will die a natural death. Seedlings usually bear but one stalk the first year; there may be three the second year, but not until the third year could one expect to be able to cut three stems. It is then a pretty old seedling. We would favor a single stalk from a two year old plant for exhibition in the seedling class of our shows. I also am beginning to doubt the value of awards. It was San Francisco which received the Dykes Medal but all accede that Los Angeles is finer. And how quickly Dauntless has been outclassed! There are so many to choose from no committee of mortal men and women can possibly select the best—it is a matter for the gods!

The borer—and food for it!—S. R. Duffy

Borers were a terrific pest in this section. They seemed to hatch and get busy until into July. I'm convinced there is a spring emergence of the imago and spring laid eggs and hatches. Otherwise there is no accounting for the appearance of borers on newly germinated seedlings not close enough to older Irises, and for the appearance of the tiny grubs as late as July. I do not believe the larva has sufficient powers of locomotion to travel a hundred feet to find seedlings. Euclid Snow is feeding borers one of his firm's compounds and it seems to work. This is "Calogreen," a finely powdered calomel, mercuric. A pinch on the flat end of a toothpick dropped into the fan where a borer is working finishes the borer.

Roadside Plantings—Mrs J. S. Routon

During the past years of my collecting I have also been distributing and have attempted to pass on in every possible way my interest and information. At my insistence years ago the Iris was designated as the official flower of our town, Paris, Tenn.

The Paris Garden Club has worked with me and through it I have given sufficient plants to make highway plantings for twenty miles, extending in each direction. I advised that these plantings be made in the yards of homes along the highway until some regulation could be made to provide supervision of roadside plantings. Care of the plants would insure increase and the possibility of extended planting.

This year I am offering to my towns-people, as well as to some in near-by towns, quantities of Iris for their gardens provided they agree to divide the increase to further highway beautification. Later I expect to extend the offer to other towns in Tennessee.

The reciprocal interest when planting the yards along the highway was very gratifying. In nearly every instance we were promised cooperation so we are assured of success. The varieties used are of the hardiest types.

Gardens of the town have been generously planted and Iris shows are regularly held. Vacant lots have received their share but, perhaps, the most effective result is the approach to, and planting of our High School grounds. This approach is a wide boulevard, with a double drive and a walkway up the center, ascending a gradual slope of one-fifth of a mile. Home owners on each side

were given sufficient roots to plant the front of their lots, facing the drive. Schoolboys were enlisted and we planted each side of the walk, so making four bands of color extending the length of the ascent.

Irises in Canada—William Miles

In Canada we have noticed that the Iris is receiving a large share of attention from the new flower lovers and it was to encourage this state of affairs that your Vice President in this region directed his efforts during the year.

Our Display Garden at Simcoe was a huge success in its first year. Hundreds of actual and potential Iris fans visited the garden to see the showing of excellent varieties, and large numbers more wrote for information on Iris matters.

Thousands of plants of first-class varieties were distributed, free of all charge, to well organized horticultural bodies in Ontario for the purpose of making educational plantings at strategic points throughout the Province. Mr. Groff's example in this regard is worthy of emulation by others with a surplus.

Red Irises?—Dr. F. M. Hanes

Dr. Ayres has the reddest Iris I have seen. All the purple has been bred out of it, but as the purple goes out the yellow shines through. My own guess is that we shall never have a translucent red Iris in the sense that Red Radiance is a red rose.

Color Notes—Contessa Senni

Apart from Jalapa and the tall Menetrier, I do not like yellow and red Irises and have banished them all to the outskirts of the garden, but this year I saw the perfect use for them in the garden of the Marchesa Origo, in southern Tuscany. It is a new garden, not quite three years old, and will one day be famous for its beauty, for the rarely fine taste of its owner is joined to an incomparable position, on a hillside rolling gently down to a river and on the opposite side the beautiful shape and color of Monte Amiata. Beyond the garden proper, with its travertine walls and masses of roses and Iris, is a part which is still half farm, half flowers; where roses and Iris combine happily with grapes and olives, and at the end where the hillside is too steep to cultivate and the woods begin, are masses of broom and among these all the yellow and

brown and yellow and red Irises are set. Some of the fine red English hybrid broom, Dorothy Walpole, is planted among the yellow Tuscan brooms and the whole effect is indescribably effective and beautiful.

The whole pinkish lilac group (Frieda Mohr, Fascination, Fragonard, Cattleya, Mrs. Marian Cran) occupied a good position needed for the red Irises, where they can be seen against the afternoon sun, so I moved them along the curved path until they stood before two grey-blue cedars, and really they look very well there. To put some contrast into this all-of-a-sameness, Cayeux's Paul Huet was added, a tall, big, very rich blend of pansy purple with pinkish reflections and in the autumn I shall add the rich Mlle. Suzanne Woolfry, one of Millet's fine warm purple blends.

An Iris Day in Region 3-T. T. HIRES

In mid-May Mr. Wister and Mr. Douglas sent invitations to the members in New Jersey, Delaware and Pennsylvania and to the Garden Clubs near Philadelphia for an all day jaunt to several Iris gardens near Philadelphia. May 27 was the day designated as that is usually the height of the season here but it was about three days too late for the bloom at their best. Too, a frightful storm on the preceding Wednesday had taken heavy toll, a wind that reached a velocity of 81 miles for a few minutes laying low many stately stalks of tall Irises with heavy flower heads. Though these were carefuly raised and staked they could not show the perfection for which they are famous. Beating rain tore opened blooms and many buds but fortunately by the day for the pilgrimage new flowers were open. The morning was spent at Mr. Wister's where the Irises have been arranged in color groups for classification. Many of the more recent European introductions were to be seen. as well as recent American introductions. It was interesting to see how many of these newer varieties were quite similar in color tone when grouped by color. After luncheon at the Merion Cricket Club and a visit to my garden we went to Mrs. Lloyd's where the Iris Bowl was most lovely in the late afternoon shadows. one seemed to think it was an interesting and instructive meeting as we exchanged ideas about methods of planting, culture, groupings for effect, relative merits of varieties and many other points. We hope to hold two, possibly three, meetings each year.

NOTICES

With this issue of the Bulletin a new department "Ask Me Another" is being inaugurated. The editors feel it should become one of great interest and value, especially to the beginner in Iris growing. Whether it will be the success we hope rests with you. It is your department, one to which you may bring any Iris problem. Questions may be sent any member of the Editorial Board and will be referred to the members they think best fitted to handle them. Whether it will be continued in future issues will depend upon the response from the members—whether they want such a department or not.

OCTOBER—1933 Ratings (all judges are requested to comment on methods of judging). A Group of Species, Illustrated; Regional Recommendations and seasonable gossip. The departments will be continued in each issue.—Sherman R. Duffy, Associate Editor, 326 West Madison St., Chicago, Ill.

IRIS-PEONIES

Our 1933 IRIS Catalogue lists over 500 of the best var. in all types. A list of fine peonies is also issued. Accurate descriptions and classification of the various types are given. You will need these lists for reference.

Large Roots at Low Prices.
KENWOOD IRIS GARDENS

R. R. 10, Box 230F. Cincinnati, Ohio

Robert Wayman's IRISES 1.200 Varieties

Hundreds of Rare Irises.
Write for FREE Planting List
ROBERT WAYMAN
Box 26, Bayside,
Long Island, N. Y.



FREE-Sample Copy Flower Grower



A magazine specially edited for gardening enthusiasts. Intensely practical, stimulating, helpful. Unlike any other. Paste this adv. on postal or enclose in envelope with name and address; we'll mail sample copy.

FLOWER GROWER

126 No. Broadway, Albany, N. Y.

The Science Press Printing Company

printers of Scientific, Botanical and Educational Journals, Monographs and Books.

Correspondence Invited

Lancaster. P

Pennsylvania



One Frida Mohr FREE
With a \$5.00 iris order from
our catalogue
W. H. Kingsley, Box 382

Hayward, California.

* * IRIS « « GAYNELLE

Finest New Early Yellow.
Send for list of other originations,
and prices.

MRS. J. M. RICHER South Whitley, Indiana

1933 Offer—Baldwin, Candlelight, Camiliard, Cinnabar, Coronation, Dolly Madison, Duchess Sarah, El Capitan, Frieda Mohr, Grace Sturtevant, Indian Chief, King Tut, Le Correge, Lodestar, Marquisette, Moa, Mrs. Valery West, Nebraska, Ophelia, Ortrud, Omaha, Peerless, Realm, Red Wing, Sir Michael, Sensation, Swazi, Wm. Mohr, Zulu—Any 8—All different, for \$5.00.

GRAND VIEW IRIS GARDENS Dubuque, Iowa

Outstanding IRIS Collections

Black Wings Desert Gold King Midas Pluie d'Or Valor Wambliska

Dauntless Nepenthe Pink Satin Tuscany Gold Blue Velvet Goldilocks Rameses San Francisco

Any of above groups, value about \$22.50, for \$12.50 Any Two, for \$22.50

Abora Indian Chief Padre Mirasol My Maryland Romance San Diego

Virgin Gold San Diego
Either group, value \$12.50, for
\$6.50

Both for \$12.00

We are glad to advise and quote, on lists submitted. Write for our catalogue, which contains one of the finest selections of American introductions.

OVER-the-GARDEN-WALL

60 N. Main St., W. Hartford, Ct.

Farr Memorial Library

Members are reminded that any Garden Club or Horticultural Society has the right to borrow from the American Iris Society the Farr Memorial Library. This library was endowed as a memorial to Mr. Farr and can be had without any charge except actual express charges both ways.

Full details about the library are given in Bulletin No. 30 but briefly it may be stated that all known books on Iris are included as well as all past Bulletins of the American Iris Society and of The English Iris Society.

Applications should be made well in advance as the library has been in great demand and has been used by over forty organizations during the past few years.

Apply to Nearest Office

East: The Horticultural Society of New York, 598 Madison Avenue, New York City.

Midwest: Mrs. Katherine H. Leigh, Missouri Botanical Garden, St. Louis, Mo.

Louis, Mo.

West: Sydney B. Mitchell, School of Librarianship, Berkeley, California.

THE CREAM OF THE CROP—We Have Them

OUR NEW IRIS CATALOG will list the best of the new as well as the good standard varieties. President Pilkington, Golden Flare, Gudrun, Jean Cayeux, Red Dominion, Shirvan, Depute Nomblot and Vert Galant are just a few that will be fully described in our new catalog along with good illustrations both in color and half-tones. If you do not receive it, a copy will be gladly sent on request.

Minnesota Grown

Hardiness Unquestionable

RIVERVIEW GARDENS

909 Winslow Ave.,

A. J. Wilkus & Sons.

St. Paul, Minn.



FINE IRIS



Valor

Crysoro

NICHOLLS INTRODUCTIONS

Honorable Mention, American Iris Society Crysoro, Purest, finest, deepest yellow, \$7.50 Red Robe, Giant, velvety, deep rich ruby, \$25.00 Valor, Taller, darker, finer Sir Michael, \$15.00

We list the best of the Novelties, all the good Standard varieties, Dwarfs, and Intermediates. Also, one of the finest collections of Beardless Iris, including many rare and beautiful species.

The finest of Stock—Free from disease—True to name

ROYAL IRIS GARDENS

J. C. Nicholls, Jr.

Camillus, N. Y.



IRIS

Do you know them?

How does a particular Iris rate compared to others? A catalog that uniquely classi-

catalog that uniquely classifies each Iris in its proper place in reference to other Iris, is

An Iris Lover's Catalog

Nothing confusing or misleading

A worthwhile treatise with beautiful color illustrations for the Iris lover to study and enjoy. Copy on request.

Schreiner's Iris Gardens

Box 103B, Riverview Sta., St. Paul, Minn.

CUPRO-JABONITE

Prevents
Iris root rot — Delphinium "Blacks"

Prevents
basal rot and fungus diseases.
Dust all roots, bulbs, etc. before planting, shipping, and storing.

A boon to Iris Growers.

Safe, economical & efficient-

Application is convenient, consisting of sprinkling (or coating) the affected rhizomes—

1 lb. Sprinkler cans—\$1.00 post paid—Special quantity prices to Nurseries and seed dealers.

If your dealer cannot supply you write—

Gordon Chemical Company, Inc. 1406 W. 9 Kansas City, Mo.

The American Delphinium Society

A group of enthusiasts have banded themselves together to work for the betterment of delphinium and to introduce the flower-loving public to the magic spell of the modern delphinium. The Bulletin of the Society, published three times a year and containing contributions by European and American specialists, is sent free to each member. In addition, the officers of the Society are ready and eager to help each member solve his particular problems.

LEON H. LEONIAN, Secretary, University of West Virginia, Morgantown, W. Va.

FALL Bloomers

Quantity Plantings Give the Longest Bloom

10 Autumn King \$1.00 6 Autumn Queen 1.00 6 Olive White 1.00

The Iris Garden
OVERLAND PARK,
KANS.

The Glen Road Iris Gardens

offer many Novelties
as well as a critical selection of
Standard Varieties

A list of your wants will receive prompt attention.

GRACE STURTEVANT Wellesley Farms, Mass.

HEARTHSTONE COPPER

Our 1932 iris introduction of unusual coloring has received many favorable comments.

Price per single rhizome \$5.00
HEARTHSTONE IRIS
GARDENS
M. Berry Doub
Hagerstown, Maryland

NEW IRIS Introductions for 1933

By J. Marion Shull
207 Raymond St., Chevy Chase, Md.
SYLVIA LENT—A yellow-white bicolor
of very great charm. Rich yellow beard;
heavy substance; fragrant. \$10.00
WATERFALL—A pearl gray self of
superb form and substance; flowers beautifully spaced on the stem. \$10.00
More detailed description on request.

CALIFORNIA GOLD

"Carries the coloring of Chrysoro into a much larger Iris."

A new break in yellows. See our Catalog.

CARL SALBACH

646 Woodmont Ave., Berkeley, Calif.

IRISES

KATISHA, STANWIX-

INTRODUCTIONS FOR 1933 Fairylea (1932), Guyasuta (1931), Edgewood, Elsinore, Lodestar, Serenade and other varieties.

> Descriptive list on request. C. H. HALL, Ingomar, Pa.

Red IRIS

Kublai Khan, Nebraska, Yataghan, Coronation and Dauntless—a gorgeous collection for those who appreciate the best—

\$13.75 value for \$8.00.

Send for Williamson's New Iris Catalog.

LONGFIELD IRIS FARM

429 Market St., Bluffton, Ind.

THE IRIS SOCIETY (of England)

Application for membership in The Iris Society may be sent direct to the American Society office. Make check for dues (\$2.85) payable to American Iris Society; send it to Science Press PRINTING Co., Lime & Green Streets, Lancaster, Pa. it plainly "For dues for The Iris Society (of England)" and print your name and address.

The American Rose Society

Invites

Members of the American Iris Society who also enjoy roses to unite with it in improving and furthering the enjoyment of roses throughout the world.

The American Rose Annual, sent to each member every year, describes all the new roses and is packed with information and inspiration for rose growers.

The American Rose Quarterly deals with current exhibitions, meetings, rose pilgrimages, roster of members etc

of members, etc.

"What Every Rose Grower
Should Know," the Society's book
of instructions for rose-growing,
is sent to each member.

Is sent to each member.
The Committee of Consulting
Rosarians will give free advice
on all rose subjects.

Dues \$3.50 per year Three years for \$10.00

Address

Secretary, American Rose Society, West Grove, Pa.

IRIS IRIS IRIS

Send for my catalog listing over 200 modern irises, including best of recent novelties. Six New SUNNYSIDE introductions for 1933 at moderate prices. Fine Bargain list.

SUNNYSIDE GARDENS, Natick, Mass.

PEONIES PAY fine profits from both Flowers and Roots. Our 22nd Annual Catalog tells you how. Only Best of Old and New Varieties, offered at Attractive Prices.

Harmel Peony Company

(Wholesale Growers)

Berlin

Maryland

J. MARION SHULL

Artist-Plant Breeder, Specializing in Iris.

207 Raymond St., Chevy Chase, Md.
Productions include Coppersmith,
Dune Sprite, Elaine, Julia Marlowe,
L'Aiglon, Moon Magic, Morning Splender,
Nocturne, Phosphor, Sequoiah,

dor, Nocturne, Phosphor, Sequoiah, Tropic Seas.

Author, "Rainbow Fragments, A Garden Book of the Iris." Price \$3.50.

To You!

Since you are a member of The American Iris Society, it need not be pointed out that you are a rather special sort of gardener, a person with more than average vision and imagination. As such a gardener of course you look for special things in all garden fields. Have you discovered the NATIONAL HORT-ICULTURAL MAGAZINE, published quarterly by The American Horticultural Society?

It is the special garden quarterly in America, written for persons like yourself, not for the dull who need a program, not for the horticulturally blind and lame who need second-hand sight and verbal crutches, but for the intelligent who like to read, who like to study, who prefer a new word or two regularly, who have courage not to follow fashion too blindly, who believe in gardening as much for the delights of mind and spirit as for the cultural blue ribbons of the shows. Try sending three dollars to Mr. D. Victor Lumsden, Secretary, 1629 Columbia Road, Washington, D. C. It will bring you iris notes and much else.



One of the World's Largest Collections from which to select

New, Rare and Good Old IRISES

1800 varieties Tall, Intermediate, Dwarf, Dutch, Spanish, Japanese and Siberian.

PEONIES

1850 varieties Double, Single and Japanese varieties.

Wholesale and Retail Price Lists.

A special discount of 10 per cent from retail prices to A. I. S. members will be allowed on all orders received and paid for before August 15th.

Delivery: Iris from July 5th. Peonies September 18th. Both until November 1st.

> Treholme Gardens Earl Wooddell Sheets. 1831 Lamont St., N. W. Washington, D. C.

BARGAIN COLLECTIONS

We are glad to be able to offer these collections, both of which are fine bargains of our best Iris.

COLLECTION C—\$27.50

Catalog Value-\$59.50

Blue Velvet Depute Nomblot Desert Gold Numa Roumestan Pink Satin King Juba Klamath Rameses Wambliska Nene

COLLECTION D—\$8.75

Catalog Value-\$18.25

Allure Beau Sabreur Blue Banner **Dolly Madison** Elsinore El. Egelberg G. Sturtevant Euphony Hypnos San Luis Rey Pluie d'Or Sir Michael Shasta Tuscany Gold

ROYAL IRIS GARDENS

J. C. Nicholls, Jr.

Camillus, N. Y.

HELP YOUR SOCIETY GROW

Invite your garden friends to become members Use coupon below

The American Iris Society

CARE OF SCIENCE PRESS PRINTING CO. LANCASTER, PA.

I desire to become a	member and
enclose thedues for the co	irrent year (Jan. 1st to Dec. 31st, 19-)
Name	
Address	
Date	
I enclose also the sum ofbulletins:	for the following
CLASSES OF MEMBERSHIP	Please make checks payable to

Active Membership Sustaining Membership Research Fund Membership \$ 3.00 \$10.00 or more \$25.00 or more Life Membership Special Three Year Membership,

\$8.50

The American Iris Society. Send to the Science Press Printing Company, Lancaster, Pa.

THE AMERICAN HORTICULTURAL SOCIETY

Invites to membership all persons who are seriously interested in horticulture. For its members it publishes, an illustrated quarterly, The National Horticultural Magazine in which will be found a more diverse and interesting collection of horticultural material than in any other American garden publication. It is written by and for its members. Among its regular features are articles on: Conifers, California plants, American natives, iris species, narcissus, succulents, lilies, unusual shrubs and trees, rock plants, ivies, and many more. Particular features for 1933 will include a horticultural review of fuchsias and preliminary reports on tulip species. Membership is three dollars the year. Checks should be made to the Society and sent to Mr. C. C. Thomas, 211 Spruce Street, Takoma Park, Washington, D. C.

SPECIAL NOTICE

Until the present issue of the New Peony Manual is exhausted the Directors of the American Peony Society have reduced the price to \$3.15, delivered. This is a reduction of 50% from former price and was prompted to meet present conditions and make it possible for every garden lover to obtain a copy, which at present price is below cost of production.

This manual is the greatest book of its kind and will prove of great value to any peony admirer. Membership in the American Peony Society, four splendid bulletins, together with the peony manual for \$6.00.

Act quick if you desire a manual as at this low price we expect to soon dispose of the balance of books on hand. Address all communications and remittances to,

W. F. Christman, Secretary, American Peony Society, Northbrook, Ill.

BULLETIN

OF THE

American Iris Society

October, 1933

RATINGS

No. 49

Editor, R. S. STURTEVANT. Associate Editor, SHERMAN R. DUFFY

CONTENTS

"Tis Better Left Unsaid," The Editor	
Comments on Rating, Sherman R. Duffy	
1933 Ratings TB, IB, MB, DB.—Classes—Judges	2
Review, Sherman R. Duffy	3
The Washington Hybrids, Grace Sturtevant	3
In Southern California, E. O. Essig	4
Californian Notes, Mrs. L. M. Lothrop	4
Color, E. N. S. Ringueberg	4
New England Notes. Activities—Show—Varieties—Questionnaire, Mrs.	_
Thomas Nesmith and Others	5
Varietal Notes, Chas. E. F. Gersdorff and Others	5
The Family Tree—The Virtues of Mixed Pollen, J. Marion Shull	6
Landscape Pictures, A. C. Kinsey, Ind.	6
Garden Pictures 8. The "Show" Garden-Edgings, R. S. Sturtevant	6
Garden at South Whitney, Ind.	7
Hemerocallis in the Iris Garden (with notes from Mrs. Nesmith's garden),	
R. S. S.	7
Calendar for Nebraska, J. Howard Judson, Omaha	7
Science Series 11. Stem Elongaton Studies, A. E. Waller & R. H. Mc-	
Cormick	8
Tid-bits 32nd. Winter Foliage—Symposia and Ratings—Scoring—Iris	
Minuta—Fall Blooming—Judging—Form—Culture—Megalophilia	
Iridis—Georgia	9
To-Read or Not-to-Read. On Native Species and in general	9
Notices—Errata. "Cold Storage"	10
"Ask Me Another." Genetics—Winter Protection	10

Published Quarterly by SCIENCE PRESS PRINTING COMPANY. LIME & GREEN STS., LANCASTER, PA. Entered as second-class matter March 8, 1927, at the Post Office at Lancaster, Pa., under the Act of March 3, 1879.

OFFICERS 1933

Directors:

Term expiring 1933: Dr. H. H. Everett

J. B. Wallace, Jr. Jacob Sass Richardson Wright

Term expiring 1934: Sherman R. Duffy A. P. Saunders

Mrs. W. H. Peckham

R. S. Sturtevant

Term expiring 1935:

Mrs. J. Edgar Hires

B. Y. Morrison

F. B. Mead

John C. Wister

President-John C. Wister, Wister St. and Clarkson Avenue, Germantown, Philadelphia, Pa.

Vice-President-Dr. H. H. Everett, 1104 Sharp Bldg., Lincoln, Nebr.

Secretary-J. B. Wallace, Jr., 129 Church St., New Haven, Conn.

Treasurer-Richardson Wright, House & Garden, Graybar Bldg., New York City. Regional Vice-Presidents—

- 1. Mrs. Thomas Nesmith, 166 Fairmount St., Lowell, Mass.
- 2. Col. J. C. Nicholls, 114 Overlook Rd., Ithaca, N. Y.
- 3. M. E. Douglas, Rugby Place, Woodbury, N. J.
- 4. E. W. Sheets, 1831 Lamont St., N. W., Washington, D. C.
- 5. Mrs. James R. Bachman, 2646 Alston Drive, Atlanta, Ga.
- 6. W. A. Payne, Box 685, Terre Haute, Ind.
- 7. C. P. Connell, 2001 Grand Ave., Nashville, Tenn.
- 8. Robert Schreiner, R. 1, Riverview Station, St. Paul, Minn.
- 9. Euclid Snow, R. F. D. 2, Hinsdale, Ill.
- 10. Mrs. Gross R. Scruggs, 3715 Turtle Creek Blvd., Dallas, Texas.
- 11. David C. Petrie, R. F. D. 2, Boise, Idaho.
- 12. Dr. P. A. Loomis, Colorado Springs, Colo.
- 13. R. M. Cooley, Silverton, Oregon.
- 14. Prof. E. O. Essig, University of California, Berkeley, Calif.
- 15. William Miles, Ingersoll, Ontario, Canada.

Chairmen of Committees:

Scientific-Dr. A. E. Waller, 233 So. 17th St., Columbus, Ohio.

Election-Dr. C. Stuart Gager, Brooklyn Botanic Garden, Brooklyn, N. Y. Membership and Publicity-Dr. H. H. Everett, 1104 Sharp Bldg., Lin-

coln, Neb.

Registration-C. E. F. Gersdorff, 1825 No. Capitol St., Washington, D. C.

Test Garden & Display Garden-Mrs. W. H. Peckham, New Rochelle, N. Y.

Exhibition-Mrs. W. L. Karcher, 1011 W. Stephenson St., Freeport, Ill.

Bibliography-Mrs. W. H. Peckham.

Awards-Dr. H. H. Everett.

Editor-R. S. Sturtevant, Groton, Mass.

Editorial Board

S. R. Duffy Mrs. J. E. Hires B. Y. Morrison

R. S. Sturtevant

LANTERN SLIDES-Rental Fee (to members) \$10.00. Apply to Mrs. K. H. Leigh, Mo. Botanical Garden, St. Louis, Mo.

THE AMERICAN IRIS SOCIETY

'TIS BETTER LEFT UNSAID

In these days of codes and cooperation even so limited a field as that of irises deserves consideration. Among us are commercial growers, originators, and customers and we are fortunate in that even the great majority of commercial growers were customers first and salesmen second. Few have won much profit but *our* interest has led many into the growing of irises as at least a partial means of livelihood and we should feel some sense of obligation each to the other.

* * * * *

The originator (or introducer) shares with us the beauty of his productions. (We should forgive a too great enthusiasm for certain of these.) He deserves such profit as there may be in their distribution and should be protected from untimely and undue reduction in price by the more worldly minded. Many have announced a definite policy but few have been permitted to maintain such a policy in the face of careless competition. The responsibility rests first on the competitor but also on the purchaser.

He owes his buying public not only his best judgment in the selection of a variety but also a reasonable charge based on supply and probable demand. He should neither introduce an "improvement" shortly nor drop his price immeasurably and thus sacrifice the commercial purchaser to his sense of honesty in judging his productions.

* * * * *

The commercial grower has equal responsibilities and even greater need of good judgment and conservative statement—the customer links the originator more directly with the quality of the variety. Without the establishing of a reputation for fair dealing to customers the grower is given short shift while few consider policies that are unfair to originators and to other dealers. The listing of novelties at cut rates followed by "we regret that we cannot supply" is all too common; a sudden drop also when a variety has not

quite come up to our first expectations. There is a place for fair changes of price from year to year among the novelties, for a fair minimum price for old varieties. The actual value of a novelty is dependent upon many circumstances but once priced its value as a novelty is only a matter of a few years. Its purchase may be an extravagance or an investment but it should not become a bad risk.

* * * * *

Without a purchaser there would be no Society, breeders would continue to breed but such is primarily an individual interest rather than a group interest, and the dealer certainly could not deal. The interests, however, of the customer and particularly of a member of the A. I. S. are not served by mere irresponsible purchase. He owes loyalty to the reputable grower who keeps faith with other growers and breeders as well as with customers. When he gives he should give to those who could not afford to buy, when he exchanges he should, at least, not undercut the originator and when he accepts he should be able to say honestly "I could never have bought that."

The exchange of valuable plants between amateurs has probably done as much injury to the cause of iris as unjustified price-cutting on the part of a few dealers. The line between amateur and commercial should be clean-cut; on the one hand money (or value) should not enter in—it is one thing to give generously to an appreciative friend and quite another thing to circularize a list of surplus stock for exchange.

* * * * *

Is it not a fair question to wonder how much an amateur and particularly an accredited judge should accept expensive varieties as gifts? The reputation of a breeder is built upon judgment, that of a commercial grower upon judgment plus fair dealing—either suffer when they err. The amateur stakes least of all upon his judgment.

Whether we buy or sell, raise seedlings or judge, give or receive, or each in turn we share our activities with others and the common interest upon which our Society is based requires that we should make a conscious effort to act for the good of all.

The Editor.

COMMENTS ON 1933 RATINGS

SHERMAN R. DUFFY

Iris ratings for 1933 differ from previous ratings in that they were limited to introductions of the last four years, previous ratings having been unlimited. Consequently, there are few ratings of irises regarded as inferior and none were filed which averaged below 70.

Several of the judges, however, listed ratings for irises older than the four years and when there were the five or more required to establish an official rating they have been tabulated. These are for the most part modern irises, dating no farther back than 1927 in the older types rated.

Irises are rated this year according to a trial point score. This score was compiled by the writer and submitted to the committee on awards at its meeting last year as a working basis for the framing of a new score scale. It was based on suggestions and criticisms of the 1932 score card. The committee decided that the best way to arrive at a point scale that might stand could best be reached by trial. A season's test of a point scale is certain to develop its weaknesses and bring forth suggestions as to its improvement.

The 1933 trial scale was radically different from that of 1932 in that it omitted the factor of outstanding quality which led to wide divergence in the figures of 1932. It made the scale average higher with far less difference in the figures from the various judges. It provided for the rating of an iris regardless of whether or not it was anything new or an improvement on other irises and by its very nature can offer no information as to whether a new iris is a duplicate or practical duplicate of others already in commerce. It merely gives the opinion of the accredited judges as to whether or not it is a good iris.

While there was wide divergence of opinion among the judges in 1932 as to whether some of the newer irises, admittedly of fine quality otherwise, were entitled to any part of the 15 points for outstanding quality, defined in the 1932 score card as meaning distinct and different or an improvement on irises already in commerce, there is no such difference of opinion registered in the 1933

scores, because of the absence of this controversial feature. Garden value was the new factor introduced into the score card and it furnished the basis for the widest difference of opinion but in no case anything like a 15 point difference such as outstanding quality gave in many cases last year.

The trial score card was not submitted with any idea that it was at all perfect or was to be adopted finally but was merely drawn up to meet suggestions and criticisms that were constructive and seemed to the committee worthy of consideration. It has operated fairly well in some respects but may require some realignment of values and definition, judging by criticisms and suggestions received.

It served the purpose of providing more uniform scoring, the differences in ratings among the judges being, for the most part, limited to reasonable proportions indicating a natural difference of opinion or preference as to color or form. Although it raised the general scale, its operation was marked by conservatism and, as in the 1932 score, comparatively few of the newer irises rate 90 or more.

The ratings were participated in by sixty-four judges, as compared with forty-seven last year, and thirteen judges who filed ratings last year failed to do so this year, indicating a real growth in interest on the part of the judges in rating irises. A far wider field is covered in the 1933 ratings than has been covered before, the new southern species hybrids having received five or more scores, giving them official rating and also the largest numbers yet recorded of dwarf bearded and intermediate irises being scored, enough of them so that it has been deemed advisable to list them separately by classes.

In these smaller classes which are so seldom rated to any extent, all ratings have been included when there were two judges or more scoring as a matter of encouragement to developing interest in these previously neglected types.

The list of irises which achieved five or more scores, sufficient to give official ratings under the rulings of the committee on awards, totals 188. More than that number received ratings of less than five, insufficient to give an official rating and, under the rules of the committee on awards, these incomplete averages may not be published.

However, as the tabulator clings to the idea that the rating of an accredited judge has some value or he should not be accredited, it seemed unfair and an altogether unnecessary waste of earnest effort to ignore these ratings which indicate the value of the newer and less well known irises, so it has been decided to publish them as tentative ratings without averages but by classes indicating their approximate worth as voted by three or four judges, no single ratings figuring in this tabulation.

The classes are the following: A, 90 or more; B, 85 to 90; C, 80 to 85; D, 70 to 80.

As none averaged under 70 in the 1933 list it has been necessary to deviate from the usual scholastic classification as there is no F class indicating "flunk." They all passed.

The reason for this is that the great majority of the ratings were made in Mrs. Pattison's Quality Gardens in Freeport during the Annual Meeting of the American Iris Society and in Mrs. Kellogg's Over the Garden Wall in Hartford. Both gardens naturally contained the pick of new seedlings judged by the expert owners of these gardens to be worthy of consideration for introduction. A minority of the ratings were made in the home gardens of the judges.

The present system of annual ratings was designed primarily for the guidance of the committee on awards in making its annual bestowal of honors. It was expanded into a general rating as an afterthought last year and this year has returned to the original purpose of rating only those irises eligible for awards. This gives a line on the value of the newer irises but no comparison with the older vintages. Consequently the ratings this year show nothing more than the judgments registered concerning the newer irises.

Of the irises appearing both in the 1932 and 1933 rating lists, twenty-one received identical ratings. Forty-one varied only a single point either way and this under score cards of entirely different character. This possibly may be taken as pegging the value of these irises in some measure, although the score cards were very different. It might indicate either that the judges were consistent in considering the irises' outstanding quality or that they did not follow the score card either year but merely assigned the values they thought about right, failing to score the irises at all.

The changes so far as suggested by various judges consist in a realignment of values, giving some factors more value and others less and in defining the various points to be scored, and will be discussed at the meeting of the Committee on Awards.

The question of whether ratings are to be continued or abolished is before the Committee on Awards for recommendation to the board of directors. The main question is "Why rate at all?"

One answer is that rating an iris teaches the rater to see an iris more thoroughly and completely and to carry away a mental picture of it that he otherwise would not be likely to gain. Rating irises is much like box scoring a ball game. The baseball bug keeps his score religiously; in fact, can't half see the game without doing so. When the game is over he has a complete record of every play on the field and can play the game over to himself or, by consulting the score, tell the fine points of the play at a glance. A score card of an iris—provided it is really scored—gives the same picture and if you keep a score card you will see much more of an iris than you ever did before. (Point scores may be used for Classes A, B, C, etc.—Ed.)

The function that iris ratings should perform is the most difficult of accomplishment—that of furnishing a guide to the buying public as to whether a new iris is really something new and worth while or merely a duplicate of others in effect that can be obtained at a fraction of the price of the newcomer. The outstanding quality factor of the 1932 score card was designed to cover this point but it raised a storm of criticism and protest from breeders and commercial interests—some of the judges criticized being cruel enough to reply that the objectors didn't want too much truth told about new irises. Be that as it may, outstanding quality is now a factor that is well nigh impossible of scoring with any degree of accuracy, and it has been abolished. So far no means of indicating in a score card whether a new iris is anything really new or worth while has been discovered. It may never be. If any members of the A. I. S. know of any way this can be done the Committee on Awards would welcome the idea.

Study of the score card indicates a few definite trends in the judging. The advent of Dominion and the Dominion race crystallized opinion as to form and the irises with horizontal or widely flaring falls get the high scores for form. The straight hanging falls get swatted. Yet as a matter of displaying the irises the droop of the falls in proportion to the height will give the best display, a four-foot iris with horizontal falls showing a mere edge to the observer. Falls that drooped or curved gracefully, for instance as in Anne Marie Cayeux, would display the beauty of the iris in far better manner.

The low and widely branched stalk gets the high figures, although a high branched stalk, provided the flowers are not bunched, is far from a fault—in irises in mass. (High branching may thus mean few buds and hence short duration of bloom.—Ed.) It is a fault where there is a length of skinny legs between the foliage and the blooms.

Blends and selfs score more highly for color than the pronounced bicolors. Variegatas, no matter how good, still suffer at the hands of the judges.

Roundly arched and overlapping standards seem to be the most widely accepted ideal and erect or cupped standards get a discount.

Distribution is as important a factor in rating irises as it is in a bridge game. A rating based on scores made in different and widely separated gardens tells more about the general behavior of an iris than the judgment of a group of local judges scoring the iris in its home garden and perhaps under conditions of intensive culture.

One of the interesting facts brought out in the ratings is that a number of irises of California origin received substantial ratings. They achieved these ratings outside of their home state and, in fact, the large majority of them were scored east of the Mississippi River.

Easter Morn, for instance, which received ratings by twentytwo judges, was rated exclusively in gardens in the eastern half of the country and altogether independently of California judges. This is a tribute to the worth of the irises of California origin.

It had been hoped to obtain ratings from a sufficient number of California judges to print regional ratings for California as well as the general rating list but not a sufficient number of judges responded to permit the accomplishment of this project. Such a rating list is desirable because of the different climatic conditions and blooming seasons, some irises which rate highly in eastern gardens being of slight value in California gardens. A total of five votes on any one iris (sufficient to establish an official rating for it) was not forthcoming from the Californians.

Following are the comments on the irises rated:

Airy Dream (Sturt.) (87). One of the first flight pinks, rating an average of 23 for color with no definite discounts in any particular; its rating of 79 last year was altogether too low. Tall, free flowering and of vigorous growth. Displaces older and dingier pinks such as Susan Bliss.

1. Very lovely pink. 2. The white beard gives this iris a character well indicated by its name. 3. Fully as good as Pink Satin and thoroughly dependable.

Alcanna (Wmsn.). 1. A bronzy red that would be a gorgeous color if not so heavily veined.

Alchemy (Wareham) (79). Judges seem to agree that this in its time may have been a fine yellow but was introduced too late and there are many better now. Its heaviest discounts are for color and quality.

Al-Lu-Wee (Sass, H. P.) (86). Rates high for color and stalk. A first class variegata or variegata blend, the standards not being pure yellow. It is well liked and much admired. Same rating as last year.

Alta California (Mohr-Mit.) (86). Seems to have improved with acquaintance. Scores high on stalk. Some judges discounted it rather heavily because of the veinings which detract from its being a pure yellow. It also is a high rate in garden value and has sufficient stature for planting with the giants. Rates higher in the east than in the middle west.

1. Fine form and stalk. 2. A fine yellow. 3. Very fine pale yellow in the east with veinings not apparent. At Freeport smaller with narrower segments and brown veinings plainly evident. I'd rate it fifteen points better in the east.

Ambrosia (Sturt.) (88). This iris gains in popularity as it becomes better known and distributed. A comparative newcomer in middle western gardens and a welcome one. There is a debate as to whether it is a pale pink or a pink tinted white. It is so pale that it looks pinker than others of deeper tone.

Andante (Wmsn.) (81). This iris is lowered in the rating this year because of some heavy discounts attributed to weak stems. Other judges find no such weakness. A beautiful dark red purple, as the writer has observed it, of fine use for planting with the lilac pinks and creamy whites. I had not noticed in any plants I have seen its tendency to flop over at the slightest provocation. In color at least, one of the really fine dark selfs. It gets a rating of close to 24 for color.

Anndelia (Sturt.). Highly praised for its beautiful pink coling. It is a fairly low growing plicata (3 ft.) of rather small flowers. The fact that low growing iris with blooms in proportion are

needed in bringing some of these gems to the attention they deserve. Jadu and Pink Jadu are of similar type.

Ann Stodder (Don.) (85). A new self reported as resembling Corrida, with a slender, well branched graceful stem.

Ashtoreth (Beaudry) (88). Another iris that distribution and acquaintance has brought much admiration. Most of the judges regarded it as a rival of Chromylla, particularly the eastern ones.

1. Same as Chromylla, perhaps a shade lighter in the standards. It would take a real expert to tell them apart. Habit, height, etc., identical. 2. A very fine clear yellow of good branching and splendid form. Should be better known. 3. A large light yellow of excellent form and substance. Stalk tall and well branched and a prolific bloomer. The color is similar to Chromylla but has better carrying quality and has outstanding garden value. 4. Very clear color. Makes a finer garden effect than Chromylla but close.

Aurex (Nic.) (86). A big variegata that makes a striking effect in the garden. It receives principal discounts for color although it is not apparent to the writer just why, unless it is a dislike of the variegata type. It comes close to a true variegata type, having the clearest yellow in the standards this writer has seen in the giant variegatas except Vision. Most of them are really blends.

1. The best large, tall growing variegatas I have yet seen. Clear, rich coloring. 2. The only real, large variegata yet seen except Vision that is not merely a matter of contrast. Claude Aureau, El Tovar, Beau Sabreur and others are not true variegatas but blends.

Australia (Pilk.). Reported as similar to Picador. 1. No! 2. I like the form better than Picador and it is a foot taller, but it is not as floriferous and needed staking.

Blackamoor (Sass, J.) (85). This seems to have achieved its notch as one of the fine dark blue purples. Eastern ratings averaged better this year than in its own territory. It plants beautifully with dark red Oriental poppies and as a neighbor of Souv. de Mme. Gaudichau in the writer's garden this year made the latter look far more indispensable.

Black Wings (Kirk.) (88). Another iris that gained in rating and this year at least seemed definitely better than the Cayeux Mme. Serouge, which is not as good a wearing iris. A topnotch very dark blue purple. Dr. Kirkland has another darksome Black Beauty reported as close to Black Wings but of better garden value.

Col. Nicholls adds another candidate to the dark blue purples in Black Warrior and Jacob Sass has one he calls "The Black Douglas." These dark blue purples and deep red oriental poppies and an occasional big white give a touch of the Urban World's Fair color scheme in the garden.

Blue and Gold (Essig) (90). A rich blue distinguished by a brilliant golden beard that achieved its rating of 90 in New England gardens. It is one of several of Prof. Essig's superlative blues, his Sierra Blue rating 94 and Pale Moonlight, 90. His older Pacific and California Blue rate 87 for the former and in the 85 to 90 class for the latter, which did not obtain five ratings, a remarkable record in blue irises for one breeder. They all seem to be reliably hardy so far as reported and all their ratings are made in eastern gardens. Still another, Blue Gown, is also in the 85 to 90 class.

Blue June (Donahue) (88). This iris is reported as a Sensation seedling of Santa Barbara type but blooming two weeks ahead of Sensation. It is also characterized as an "improved" Sensation. It has flaring falls and a gold beard, is tall and well branched.

Blue Monarch (Sass, J.) (86). The writer bloomed this iris under number, 31-83, and it looked like one of the bluest of the blues. All judges scored it high for color. All judges also gave the chief discount for the stalk, which gave indications of being more widely branched when established. It has been likened to Leonato, Blue Hill, Elsa and Sensation in color. There were also discounts for substance but it bloomed in searing hot, dry weather. The stalk in my garden carried twelve buds and branched about the middle of the stalk. It seemed to me to be closest to Elsa but of bluer tone and has the same frosted glistening texture but is larger with wider and better falls which are flaring. It has a white beard while that of Elsa is yellow. It is a vigorous grower. 1. Lighter blue than Blue Hill. 2. Tall and a glorious color. Has the sheen 3. Seems identical in color with Elsa. Falls are not quite as long but are wider. Standards slightly wider. Both have the same frosted appearance of silver specks and about the same branching. 4. A larger flower and lighter blue than Sensation. Lacks substance. 5. This stood the hottest and dryest winds in Nebraska (where I scored it) an iris is ever likely to meet and it stood up fairly well where others curled up.

Blue Velvet (Loomis) (86). Gained in this year's ratings but still the subject of debate as to whether best of its type or disappointing. It's like that well-known little girl before they bobbed them.

Boadicea (Nic.) (83). Principal discounts are on the stalk. A beautiful blend, the judges being about equally divided as to whether it is closer to Midgard or Endymion. Better form than Endymion and a little more blue in it than Midgard. A handsome blend of fine coloring. All judges agreed the color was good.

Britoness (Dykes, K.). 1. Unless the color and form of this iris improves it does not live up to its advance notices. The color is muddy, a pale creamy yellow.

Bronze Beacon (Sal.) (86). 1. A light Glowing Embers in style and effect. 2. Richly colored flower of very good quality. 3. An unusual softness and brilliance to the coloring. Standards not as good as falls. Bloomed over a long period.

Brown Betty (White, C. G.). Four judges place this iris in the 90 or more class. It is described as of distinct and unusual col-1. In Brown Betty, the browns of irises have grown full This is more brown than any iris I have seen. Although the flower is very large and on a tall stem, it is daintily poised with falls outspread. It is a very beautiful and unusual blend. 2. An outstanding and most levely iris. 3. Height 43 inches, very unusual coloring, good form, a very desirable iris. 4. Falls and standards 2½ by 2½. The color is new to me. Standards livid brown with Argyle purple. The center of the falls is perilla purple over Prussian red blending to mikado brown. Veining on hair antique brown over empire vellow. The broad cadmium beard is not particularly noticeable when the falls assume their horizontal position. It is a Mauna Loa seedling and the color does not fade or change. I have watched this iris two years and consider it very desirable.

Buechley's Giant (Buech.) (80). Yes, it is a giant but it reminds the writer that he doesn't yet know any two-toned blue iris he prefers for the garden to Crusader and that El Capitan is also a giant, and he thinks of better form. Except in size it is a comrade or "pally" iris—it will find many kindred. The judges find it resembling Lord of June, Halo, Neptune and others. It is a bigger Lord of June but doesn't flop and is imposing by its very size if not for its color. Otherwise, the writer agrees with a majority of the judges who did not find it interesting.

Burning Bronze (Ayres) (90). A big bronzy red that Dr. Ayres did not seem to regard as highly as some of his other iris

progeny or as did the judges. It seemed to the writer that it would make a striking garden note and that it gives Depute Nomblot a bit the worst of it as to color. It is of much the same type but as it bloomed in Mrs. Pattison's garden seemed to me to be brighter and clearer. If it looked last year anything like it did this year, it is difficult to understand how anybody could follow a score card and score it 78. Not one of fourteen judges who scored it rated it less than 86 this year. It is described as a darker Dauntless and a brighter Grand Monarch by the judges. Dr. Ayres said that it was a rather slow grower. A study of the score card shows that the principal discounts were for garden value, owing to its dark color, and for vigor based on Dr. Ayres' report that it was not of rapid increase.

Carnelian (Lothrop). Mrs. Lothrop's red-toned iris rates in the 90 and up class, the judges rating it finding small discounts here and there but none to indicate any definite fault in this iris. It has not yet been distributed sufficiently for a rating outside of its home community. It is agreed by the judges that it resembles Mauna Loa more nearly than any other iris.

1. It is a beautiful red iris, very outstanding, and almost perfect. 2. A huge red flower, stalk 48 inches. Standards auricula purple, falls blackish red purple. Branching good, form excellent.

Charlotte Lee (Donahue). A new "pink" that incomplete ratings indicate will rank high. It resembled Aphrodite but is of clearer, rosier coloring.

Cheerio (Ayres) (88). It seemed to me that it had about the reddest tones in the falls in certain lights I had yet seen except in Jacob Sass' unintroduced 30–40, which is an iris bonfire but will be kept for home consumption because its standards are too soft to suit its originator. Several of the judges gave the opinion that it most resembled Dauntless, although it seemed to have too much brown in it to the writer.

1. A great iris. 2. The best red iris. 3. It has richer, deeper, more velvety coloring than Dauntless.

Cherry Rust (Wmsn.). 1. A small edition of King Tut, the falls not so red, the standards more colorful, with a remarkable yellow glow in the throat. Unique among medium height irises and indispensable for the garden picture. Good form and a vigorous grower. 2. Brilliant, redder and later Sachem.

Clara Noyes (Sass, H. P.) (85). Same rating as last year. This unusual and brilliantly colored iris received rather heavy dis-

counts for form and stalk. The rating for color was uniformly high. It also was given discounts for garden value on the ground that it was hard to place, although what this difficulty may be is not stated.

Classic (Grinter) (79). Discounts for color, quality and garden value bring this iris down. It is too dull for good effect.

Copper Lustre (Connell). Rating incomplete but in the 90 and up class indicated. As reported last year, its brilliant copper tones add a new color note to the garden. It is reported of good substance and weather resistance and a vigorous grower.

Coralie (Ayres) (90). This beautiful rose and red-toned iris of which Dauntless is the pollen parent again attracted great admiration. Its coloring is a distinct note, the closest approach possibly being in the tones of Rose Dominion, although it is brighter. Mrs. Pattison's grouping of Coralie, Dauntless and Spring Maid was again one of the most admired groups in her display garden.

Cortez (Nes.) (94). One of the highest rating of the new irises is this seedling No. 100 of Mrs. Nesmith. It is described as a yellower and richer Reverie with its beauty of form and other good points. It probably should be classed as a variegata blend. The judges evidently had difficulty finding anything to discount, judging by the score card, and just took nibbles here and there, five points for color being the extreme.

1. Withstood rain, wind and heat, nine blooms. Beautiful form.
2. The best variegata I've seen this year. Distinct in coloring, a real red purple.
3. It is larger, more yellow in color and richer than Reverie,—a beautiful iris, extra quality in both substance and texture. A large, tall brilliant variegata of Dauntless size and height. The standards are a deep yellow overlaid with rose, the falls a bright crimson purple. Outstanding as to brilliance of color.

Cydalise (Cay.) (82). The beauty of this iris is confined to the bright yellow of the standards. The falls are unusual because of their heavy brown plicata pattern but are narrow. Nicholas Poussin is of the same type but with the plicata pattern confined to the base of the falls and is a far better iris.

Desert Dawn (And.). This is in the 85 to 90 class on incomplete ratings. A soft blend reported as resembling Candlelight.

1. Lovely soft color but not much garden value.

2. Not as fine in the middle west as it was in the east last year.

Desert Gold (Kirk.) (87). Apparently better in the east than in the middle west where the Gold is lacking, it being nearer a creamy white. 1. Would be a leader if taller and not so bunched. 2. The color is a little pale for our sun. The stalk is a little too high-branched for a really fine flower but it is the finest hardy yellow I have seen. 3. Next to Ashtoreth, the best medium height yellow. 4. Very fine throughout the east but looked poor at Freeport. The middle west seemed to have a poor opinion of it in general but it was better at St. Paul. In my opinion far better than Chromylla and much earlier. 5. A pale and rather greenish garden yellow but stands up for exhibition as an outstanding fine light yellow. 6. Lacks distinction of color.

Directeur Pinelle (Cay.) (90). A new huge dark red purple from Cayeux that made an imposing showing on its first blooming at Mrs. Pattison's. It seemingly had better substance than many of the big Cayeux irises. Its chief discounts were for garden value. Its vigor is mere guesswork so far. 1. Would prefer to see this under various conditions. The stalk observed this year was most excellent. We have a number in the same color range so further observation is necessary. 2. A very rich dark variety, its only fault poor carrying quality. 3. Wonderful deep coloring, fine branching. 4. Just another dark iris. 5. One of the best new ones shown this year.

Dog Rose (Insole) (82). This iris is far more effective in a mass or clump than the single stems which surprised us that it should have been introduced last year. It is very tall and the color is good but we have many pinks just as good and better. 1. The best pink I have seen, fine branching and carrying quality. 2. Too high-branching. 3. Tall slender stem well-branched. The best of the orchid pinks. 4. I see nothing remarkable about this iris. Surely there is still room for a better pink. Pink Satin in the same garden showed much more class. 5. I see no more in this pink this year than last and stick to my idea that it isn't good enough.

Eclat (Gage) (84). A blend of Ophelia type of beautiful tones. It is also reported as somewhat similar to Mr. Morrison's Starsong. 1. Pink and burnished copper tones, a beautiful iris of fine gardèn value. 2. Deeper color, much larger and taller than Starsong but not as good form.

The chief discount given are for stalk, which some of the judges consider too slender.

Electre (Cay.) (84). Characterized as a deeper Cavatina, a combination of tan and lavender, reported as a good blend. Chief discounts as to color, which lacks clarity.

1. A very pleasing soft blend but doubt if it will be effective except close at hand. 2. Ashes of roses iris of good form. 3. A fairly good blend.

Eloise Lapham (Lap.) (87). As well liked this year as last and the same score. A delicate, very pale pink after the style of Trostringer or Caroline E. Stringer. Neither large nor tall but a beauty for the front of a planting.

El Tovar (Sass, H. P.) (89). This unusual and striking variegata blend has now had good distribution and has excited much admiration except among those who can find no beauty in the variegata types. It has richness and brilliancy and unique color combination. 1. A distinct variety in color and form but does not appeal to me as some others do. 2. A splendid iris. The standards twist and that is about all the fault I can find with it. 3. This is a very outstanding iris but was not at its best on a first year plant. 4. More of a bicolor than Jeb Stuart and color of standards yellow in center and not so rich or as good form. 5. One of the most unusual irises seen this season.

Ethelwyn Dubuar (Lap.). A pink in the 85 and up class. 1. The largest flower of any pink I have seen. A "best seller" in my garden. 2. A very well-shaped pink. 3. Resembles Pink Satin but is a larger flower.

Gilead (And.) (86). If anything this is rated too low, its Free-port ratings being at a disadvantage because of its placing beside Rusty Gold which dulled its beautiful coloring. Its golden brown tones when first opening are comparable to Jean Cayeux as it ages, although they are blooms of different form. It matures into a beautiful golden blend. Its branching and placing are excellent and its size and height are in good proportion. 1. Disappointing at Freeport. Not at all the glowingly beautiful blend that I saw last year at West Hartford. Practically all the irises I saw in the west and middle west were paler and less richly colored than in the east. 2. Stalk, branching and placing almost ideal. Would be good against a green background.

Gleam (Nic.). Close to Mary Barnett, almost a toss-up. Gleam would claim preference because of its great freedom of bloom. A beautiful pale blue iris with a golden beard. Bloomed

from side shoots like an intermediate for me. It does not seem to make as good height as Mary Barnett and the blooms are a little crowded. Both seem to me better than Princess Beatrice, which seems to me to be more of a fetish than a fact so far as quality is concerned. 1. Best of the light blues I have seen. Does not increase rapidly nor is it above medium height.

Gloriole (Gage) (91). This pale blue to near white iris was highly praised last year and declared by western visitors in eastern gardens to be the best new seedling on display. It is variously likened by the judges to Santa Fé, Santa Barbara, Souvenir de Loetitia x Michaud and Wambliska. No pronounced or definite discounts. 1. Heavy texture and substance. Large, finely formed, frosty flower. Finest pale blue and white iris I have ever seen. Eight to nine flowers to a stalk. 2. Tall, well-branched stalk with large well-shaped blooms of Santa Barbara type. The color is a light blue with a frosty covering. A striking iris. 3. Distinct color, excellent substance and texture, fine in every way. color and finer height and substance than Wambliska. 5. In form much like Santa Barbara but much lighter and the color varies according to the sunlight. 6. Exquisite pale blue, fine form, glistening texture.

Golden Flag (Sturt.) (84). The deepest in tone Miss Sturtevant has yet produced, according to the reports of the judges. The chief discounts given are on form. 1. The best color of any yellow iris. 2. A darker Pluie d'Or. 3. Good color, ruffled deep yellow, very lovely. 4. Deepest color of all Miss Sturtevant's yellows. Better form than Shekinah.

Golden Helmet (Sass, J.) (90). A larger, taller, and redder King Tut, a most brilliant iris. The chief discounts applied by the judges were on stalk. 1. Very similar to King Tut but larger. 2. I took a stalk home and waltzed around King Tut with it. An improvement on King Tut, taller and more red.

Golden Light (Sass, H. P.). Incomplete ratings indicate 90 class. A cinnamon-colored seedling of Euphony, the effect at a distance being a very rich yellow, in fact about the most intense of all the deep yellows. It is taller than Euphony but has inherited its characteristic form. This looks like a very desirable iris.

Gold Vellum (Gage). Incomplete ratings indicate 85 to 90 class. A low growing iris of vellum-like texture, hence its name.

It is reported as having fine garden value for low clumps or masses. Deep yellow in color.

Grinter No. 25 (Grinter) (93). Pronounced by several judges the finest light blue iris yet shown. A superlatively fine light blue, a Sensation seedling and lighter than Missouri, another of Mr. Grinter's fine blues. Again we encounter Princess Beatrice and the comment that it is too close to that ancient which seems more of a legend than a fact as to its fine quality. I have seen a variety of irises as Princess Beatrice and probably one of them was it but none could compare with Grinter's No. 25, Gleam or Mary Barnett in general excellence. If none of them was it, perhaps the tradition has foundation but the one of seven I kept as true corresponds to Mr. Sturtevant's identifying description. 1. Hardier than Souv. de Loetitia Michaud. Better stem, better substance, and clearer color. The perfect light blue. 2. Very fine largeflowered light blue with white undertone. Very striking and best seen of its type. Far larger and more beautiful than Sensation. 3. A most interesting iris. Seems most worth while but wish to see its behavior another year. It really should rate higher than the 88 I give it if it continues to perform as of this year. 4 A beauty but probably entirely too close to Princess Beatrice for introduction. 5. Several days' observation proved that this iris faded to grav in the hot sun. Lovely when first open.

Gudrun (Dykes, K.). Indicated 90 and up class. Pronounced by three judges one of the finest of the newer whites, by one of them declared the best, which is a large order considering the whites in the field.

Hypnos (Con.) (83). A handsome and excellent blend which replaces the old Steepway and which plants beautifully with other blends such as Ishtar and Chalcedony. It also takes the place of Mme. Cheri in garden effect in an iris of better form. It is a sturdy grower, fast increaser, and free bloomer.

Imperial Blush (Sass, H. P.) (87). Seems to be the largest and tallest pink to date. Having seen it two years and bloomed it, it has proved to be an excellent doer. It is larger, paler and not quite so pink as Pink Satin. 1. Very large, paler than Pink Satin. A very fine iris. 2. This light pink is a vigorous strong grower with stout stems that carry the large flowers well. Height of stalk 44 to 50 inches. 3. Larger than Pink Satin but of the same form and color. 4. Saw it in fine form at the St. Joe show in 1932 and

not so good in 1933 as it had to be held back in cold storage. The best pink to date but substance and branching still to be worked for. 5. A much taller, larger and more floriferous Pink Satin.

Jeb Stuart (Wash.) (87). This is regarded as a rival of El Tovar by eastern judges. It is described as coppery red to black blend. El Tovar is yellower in the standards and blacker in the falls, according to judges' reports. Both are striking irises. Not rated by any western judges. 1. The best real blackish copper red that I know, thick, heavy substance, fine form, domed standards, intense yellow beard. Has splendid carrying quality in the garden. Every one who has seen it has been much impressed. One of the best. 2. Standards darker and form far finer than El Tovar. Better branched and more brown than Melchior.

Jerry (Lap.). Indicated 80 to 85 class. 1. Much better color than Dauntless and Mrs. Valerie West. 2. Substance, form and weather resistance are noteworthy.

Junaluska (Kirk.). A Class. 1. The outstanding feature of this iris is the way the gold streaks through the gold standards. 2. Beautiful rose, copper and gold blend. Very outstanding in Dr. Kirkland's garden and admired by all. 3. The most outstanding iris of its type seen in some time. Weather resistant and brilliant in every way.

Kaffir (Pilk.) (82). 1. A poor Indian Chief, a dull bicolor not needed. 2. Something like Mrs. Valerie West but Mrs. Valerie West is far ahead of it. 3. A finely formed flower, the standards rather a dull blend of buff. Stem rather crowded, falls extremely rich.

King Philip (Fewkes) (85). 1. A fine well-formed deep blue flower and generally desirable.

K. V. Ayres (Ayres) (89). Holds the high esteem of the judges. A beautiful blend that must be seen close at hand to note its real beauty as it has not much carrying power. Along Afterglow lines as nearly as it can be likened to other irises but distinct in itself. Some of the judges at Freeport tested other irises with it to see how it might best be placed in the garden and were surprised to find that Dolly Madison and creamy yellows seemed to bring out its colors best.

Lady Gage (Gage) (84). 1. Stem a little short, otherwise an excellent white. 2. Very good white of medium height. 3. A short Purissima.

Loomis J 20 (Loomis) (87). One of several yellow seedlings shown in Mrs. Pattison's garden at Freeport from Dr. Loomis. J 20 is a Chromylla seedling and the individual blooms seemed to be the finest all around flower of all the pale yellows which Mr. Sturtevant calls "cool" yellows and which the writer is inclined to consider warm whites. This one has considerable yellow in it. The flowers, however, were bunched at the top of the stem and it may or may not have good branching when established. There were indications that it might be well-branched on mature plants. These flowers stood unscathed through three days of the hottest iris season we have ever known in the middle west. A deep yellow at the center lights up the flower.

1. Not quite tall enough; form, size of flower, texture, excellent; color pure. 2. Good size, extra good form. 3. Deeper, larger and better than Chromylla—falls flushed deeper yellow to beard, paling to top. Standards cream.

Maluska (Nes.) (89). An imposing new iris of Mrs. Nesmith's of Mrs. Valerie West-Grace Sturtevant type. It is reported of better form than Grace Sturtevant and a trifle browner. The principal discounts were for stalk.

Marquita (Cay.) (87). Much more striking in a group than as a single stalk. The huge creamy standards set off by the redveined falls can be seen across the garden. The judges applied their discounts chiefly to form and stalk.

Mary Geddes (Wash.) (89). Hailed by a number of judges as the outstanding iris of the day and notable for its substance which withstands rain, hail and wind. Its chief attraction is its color, a beautiful blend of salmony tones, some of which are repeated in Clara Noyes and the new Trail's End and the older Indian. It has been awarded an A. M. at Wisley trials in England. It seems to have achieved sudden popularity and admiration due to better distribution.

Missouri (Grinter) (89). This iris takes its place as one of the finest of the blues of medium depth, slightly deeper than Realm. It is slightly bicolored, the falls not as blue as the standards. The judges found no definitely indicated discounts, indicating an all around fine iris.

Mme. Recamier (Wash.) (87). A new pink that receives high praise because of its color tone. 1. A real peach pink of fine form and quality. Resists wind and rain. The finest real pink, delicate

in color and exquisite. Very hardy. 2. An unusual light pink tone. Good stalk, well branched, a good bloomer and vigorous grower. A very attractive iris.

Monomoy (McKee) (88). Mr. McKee has here produced another big dark blue iris of Swazi and Royal Beauty type that commands the admiration and high rating of the judges who saw it. It is reported as of even better form than Royal Beauty and deeper colored.

Ningal (Ayres) (83). This iris was obviously underrated badly last year at 65. It is close to K. V. Ayres and some judges prefer it although to the writer it lacks the finish and quality of the latter.

Nurmahal (Nic.) (84). Grace Sturtevant type, better stalk and form but in the writer's garden and at Freeport it did not appear to have the intensity of color of Grace Sturtevant or as much carry. It is redder than Grace Sturtevant and an exceptionally fine iris.

Peaches (Sass, H. P.) (81). Much like Clara Noyes but not as good.

President Pilkington (Cay.) (87). An imposing iris in size and height and close to Dolly Madison in color but of different form. It is a matter of paying your money and taking your choice. Pilkington is larger and taller, a handsome blend.

Opal Dawn (Sturt.) (85). A color gem, brilliant yellow overlaid with pink. A low growing iris that will be popular as it becomes better known, according to the judges who score it high for color.

Robert (Ayres) (89). A handsome and unusual iris taking Ochracea coloring into a larger and finer flower.

Rubeo (Mohr-Mit.) (88). 1. A splendid red iris of fine form, height, and texture. Underrated last year.

Shirvan (Loomis) (88). This gorgeous iris illustrates the fact that the fault of short branching produces fine mass effects. This iris is ideal for mass plantings as Mrs. Pattison has shown for two years and its gorgeous browns and tans always attract attention and admiration. It is neither large nor tall. 1. One of the most striking irises seen. Brilliant effect and novel color. Although it lacks perfection of stalk it makes an exceedingly fine effect in the garden. 2. Wonderful color and quality. Branching and spacing poor. 3. Well worth while in spite of small bloom and short stalks. 4. Not interested.

Spokan (Sass, J.). Another excellent red of indicated 85 to 90 class. It has much the coloring of King Midas on a taller plant.

Springtime (Sturt.) (87). A pale pink acclaimed by all judges rating it. 1. Beautiful white-tinted pink. Very clear in appearance. Much finer than Dreamlight. 2. Beautiful pale lilac pink, charming. 3. Good substance, ruffled, fine pale pink. 4. To my mind better in every way than Pink Satin.

Starsong (Mor.) (85). Praised for its beautiful and unusual color, described as that of the standards of King Karl. A buff yellow blend.

Talisman (Mur.) (83). This English introduction has beautiful coloring in a light blend effect but one could wish the colors were more definitely blended and less streaked. Its substance may be weak. 1. Talisman and Golden Flare are two fine apricot buff and rose blends that I know will easily win their way. They have an exquisite blending of color. Golden Light belongs in this type but provisionally I would say not so good.

Theodolinda (Ayres) (81). A huge floppy plicata that at Freeport showed such poor form it was reported it would be withdrawn. However, it is later reported that it will be continued.

Thuratus (Sass, H. P.) (86). A very dark iris that has moved up in the rating. Despite faults of form and unpopular rather straight hanging falls it stacks up with the best for a dark effect in the garden.

Trails End (Wmsn.) (88). A beautiful new blend of Mary Geddes type. It was the last iris put in commerce by Mr. Williamson and Mrs. Pattison named the iris accordingly, Mr. Williamson remarking at the time of the sale that he felt he was near the end of the road. It is a brighter and perhaps more richly colored Mary Geddes. Some judges will consider it better. Mary Geddes may have better form but is not better from a color standpoint. Also considered as a lighter Coralie.

Treasure (Sturt.). An indicated 85 to 90 iris. It is described as a softer and lighter colored King Tut of unusual and beautiful coloring.

Valor (Nic.) (86). A handsome and stately iris most judges liken to Sir Michael and others to Majestic and Royal Beauty. In my garden it was closer to Petrucchio and Sir Michael, the standards having a bluer cast than on the plants in Mrs. Pattison's garden and a more pleasing contrast with the velvety purple falls,

which are bluer than those of Sir Michael. It is taller and larger than Sir Michael but is not superior in color as I have seen it, nor are they identical. There is room for both.

It probably will rate higher when established plants are judged. War Eagle (Sass, J.) (90). This apparently is the largest iris yet turned out by Mr. Sass, a huge red purple. Grown beside Nene, it was the larger flower and of far better color. It may be criticized for too heavy venation but promises to be one of the most striking irises in the garden. It is tall and the stem is well-branched.

White, C. G. 2 C 5 (White). An indicated 85 to 90 pink of fine height and form. 1. This iris is very attractive and unusual. It is a beautiful shade of pink lavender with a yellow undertone and a bright yellow beard. 2. By actual comparison with Pink Satin, this was pinker. In finish, form, substance and texture, it is much better. There is gold in the heart and the surface is lacquered. It is about 3 feet tall.

Winner (Sturtevant). Indicated 85 to 90 class. Miss Sturtevant has here, the judges report, a lighter toned Pioneer of Morning Splendor form.

RATINGS-1933

(Attention should be called to the fact that a number of varieties receiving awards in 1930, 31, and 32 have not received sufficient votes (5) to be rated in 1933. In the case of Lady Paramount this may well be due to location, while in that of Polar King it is due to my neglect and that of other judges who took no care as to the rating of varieties which had received high awards previously. As it happens neither of these varieties are eligible for the Dykes Medal until introduced and lack of distribution (or introduction), of accessibility for judging, are major factors in much apparent lack of interest in varieties once considered worthy of an award.—R. S. S.)

Name	Number of Judges	1932 Rating	1933 Rating
Airy Dream (Sturt. 1929)	6	79	87
Alchemy (Wareham 1932)	5	69	79
Aleina (Con. 1931)	10	81	80
Allure (Murrell 1927)	6	70	77
Al-Lu-Wee (Sass, H. P. 1932)	8	86	86
Alta California (Mohr-Mit, 1931)	14	81	86
Ambrosia (Sturt. 1928)	6	84	88
Andante (Wmsn. 1930)	6	85	81
Anne Marie Cayeux (Cay. 1928)	8	88	87

	Number of	1932	1933
Name	Judges	Rating	Rating
Ann Stodder (Donahue, N.)	5		85
Arbutus (Lothrop) H. M., 1931			
Ashtoreth (Beaudry 1932)	12	85	88
Aubade (Con. 1931)	11	80	82
Aurex (Nic. 1932)	7	77	86
Avatar (Wmsn. 1927) A. M., 1930		82	
Baldwin (Sass, H. P. 1927)	7	84	88
Beau Sabreur (Wmsn. 1930)	14	81	80
Blackamoor (Sass, J. 1932) H. M., 1931	16	84	85
Black Wings (Kirk, 1930)	27	84	88
Blue And Gold (Essig 1931)	5		90
Blue Banner (Kirk, 1929)	12	82	83
Blue Hill (Sass, H. P. 1931) H. M., 1932	7	85	87
Blue June (Donahue 1931)	7	86	88
Blue Monarch (Sass, J. 1933)	9	•	86
Blue Triumph (Grinter, N.)	12	85	93
Blue Velvet (Loomis 1929)	13	80	86
Boadicea (Nic. 1931)	11	81	83
Bronze Beacon (Sal. 1932)	5	89	86
Buechley's Giant (Buechley 1932)	22		80
Burning Bronze (Ayres, N.)	14	78	90
Cameliard (Sturt. 1927)	6	83	84
Carfax (Bliss 1930)	7	65	77
Cheerio (Ayres, N.)	13	80	88
Chromylla (Loomis 1930) H. M., 1931, A. N.,			
1932	25	88	85
Cinnabar (Wmsn. 1928) S. M., 1930	5	85	88
Clara Noyes (Sass, H. P. 1930) H. M., 1931,			
A. M., 1932	23	85	85
Classic (Grinter 1931)	6	73	7 9
Clewer (Contrast) (Waterer 1929)	5	•	81
Colonial White (Donahue N)	6		85
Coralie (Ayres 1932) H. M., 1932	19	91	90
Coronation (Moore 1927)	7	86	87
Cortez (Nes. N)	6		94
Cydalise (Cay. 1930)	7	83	82
Dauntless (Con. 1929)	11	89	90
Député Nomblot (Cay. 1929)	16	89	88
Desert Gold (Kirk. 1929) H. M., 1931; A. M., 1932	16	89	87
Directeur Pinelle (Cay. 1932)	$\frac{10}{14}$		90
	$\frac{14}{14}$	 75	90 82
Dog Rose (Insole 1930)	6	75 84	82 87
Dorothy Dietz (Wmsn. 1929)		-	85
Dune Sprite (Shull) A. M., 1931	5	 88	
Dune opitie (onun) A. M., 1891		00	******

Name	Number of Judges	1932 Rating	1933 Rating
Easter Morn (Essig 1931) A. M., 1932	22	89	91
Eclador (Cay. 1932)	11		90
Eclat (Gage N.)	5		84
Electre (Cay. 1931)	6		84
Elizabeth Egelberg (Egelberg 1929)	10	79	80
Eloise Lapham (Lap. 1932) H. M., 1932	8	87	87
El Tovar (Sass, H. P. 1932) H. M., 1932	16	92	89
Eothen (Wareham 1932)	8	84	79
Erebian (Loomis 1931)	10	87	81
Ethel Peckham (Wsn. 1932) H. M., 1932	22	90	87
, , ,	7	84	83
Euphony (Sass, H. P. 1929)	5	77	
Flush of Dawn (Berry 1931)			78
Fortunio (Cay. 1930)	6	85	85
Gilead (And. 1931) H. M., 1932	15	86	86
Gleam (Nic. 1929)	6	88	88
Gloriole (Gage 1933)	8	87	91
Golden Flag (Sturt. N.)	6		84
Golden Helmet (Sass, J. 1933)	6		90
Goldilocks (Wayman 1930)	10	76	76
Gold Lace (Lothrop) H. M., 1931		76	
Gold Top (Sal. 1931)	5	80	80
Grace Sturtevant (Bliss, 1926)	7	85	85
Helios (Cay. 1929)	15	86	85
Henri Riviere (Mil. 1927)	7	83	85
Hermene (Parker—J. B. 1931) H. M., 1931	10	78	85
Hermitage (Kirk. 1931) H. M., 1930	14	79	82
Hernani (Cay. 1929)	11	85	84
,			
Hollywood (Essig. 1929)	8	86	86
Hypnos (Con. 1931)	12	83	83
Imperial Blush (Sass, H. P. 1932)	14	88	87
Indian Chief (Ayres 1927)	12	84	88
Irma Pollock (Sass, H. P. 1931)	7	85	86
Jean Cayeux (Cay. 1931)	20	91	90
Jeannette May Kennedy (Keller 1931)	5		70
Jeb Stuart (Wash. 1932)	10	89	87
Joycette (Sass, J. 1932) H. M., 1932	18	87	88
Kaffir (Pilk. 1928)	6		82
Kenwood (Ayres 1932)	10	77	82
King Juba (Sass, H. P. 1930) H. M., 1932	12	82	85
King Midas (Mead, 1928)	7	84	87
King Philip (Fewkes 1932)	5		85
Klamath (Kleinsorge 1929)	6	78	79
Kublai Khan (Wmsn. 1931)	5	77	78
K. V. Ayres (Ayres 1932) H. M., 1931	18	90	89

Name	Number of Judges	1932 Rating	1933 Rating
Lady Gage (Gage N.)	5		84
Lady Lavender (Ayres)	7		81
Lady Paramount (White, C. G. N.) H. M.,			
1932	******	95	
Largo (Ashley 1931)	15	74	82
Laurentia (Williams) H. M., 1931			
Los Angeles (Mohr-Mit. 1927)	15	89	92
Maluska (Nes.)	5		89
M. A. Porter (Lap. 1931)	9	78	84
Mareschal Ney (Wmsn. 1930) H. M., 1932	8	82	84
Marquita (Cay. 1931)	14	86	87
Mary Elizabeth (Kirk, 1929)	8		83
Mary Geddes (Wash. 1931) H. M., 1930	29	87	89
Mary Lee Donahue (Gage, N.)	8		95
Meldoric (Ayres 1930) H. M., 1931	21	84	88
Mephisto Cayeux (Cay. 1930)	6	71	80
Midgard (Sass, H. P. 1926)	8	87	85
	6	81	82
Midwest Pride (Sass, H. P. 1930)	7	79	81
Mirasol (Mohr-Mit, 1929)			
Missouri (Grinter 1933)	18	85	89
Mme. Recamier (Wash.)	5		87
Modoc (Essig 1929)	5	87	88
Monomoy (McKee, N.)	5		88
Moon Magic (Shull 1931) H. M., 1932	12	85	82
Morning Glory (Kirk, 1929)	9	87	85
Mount Whitney (Millik. V.) H. M., 1932	•••••	•••••	
Mrs. Herbert Hoover (Homewood 1930)	8	76	82
Mrs. Valerie West (Bliss 1925)	7	88	89
Nanook (Ayres 1932)	10	63	78
Nepenthe (Con. 1931) H. M., 1932	15	82	84
Newtonia (Donahue 1929)	10	7 5	80
Ningal (Ayres 1932)	13	65	83
No-We-Ta (Sass, H. P. 1932)	16	83	85
Numa Roumestan (Cay. 1928)	6	84	86
Nurmahal (Nic. 1931)	12	83	84
Nusku (Nes. 1930)	9	75	82
Opal Dawn (Sturt. N.)	6		85
Opaline (Wmsn. 1930)	13	85	85
Oriana (Sass, H. P. 1933)	9		87
Pacific (Essig 1929)	5	85	87
Pale Moonlight (Essig 1930)	7	83	90
Peaches (Sass, H. P. 1931)	5	68	81
Persia (Ayres 1929)	15	86	86
Phebus Cayeux (Cay. 1930)	9	81	87

Name	Number of Judges	1932 Rating	1933 Rating
Phosphor (Shull 1931) H. M., 1932	17	83	83
Picador (Mor. 1930)	6	86	86
Pink Jadu (Sturt. 1931)	6	83	85
Pink Satin (Sass, J. 1930) H. M., 1931	16	79	87
Pluie d'Or (Cay. 1928)	9	88	87
Polar King (Donahue) H. M., 1931, A. M., 1932		92	
President Pilkington (Cay. 1931)	13	86	87
Purissima (Mohr-Mit. 1927)	7	84	84
Quevera (Sass, H. J. 1928) H. M., 1931	9	87	81
Rameses (Sass, H. P. 1929) H. M., 1931,			
Dykes, 1932	13	87	90
Rasakura (Wmsn. 1930)	12	81	80
Red Dominion (Ayres 1931) H. M., 1931	16	87	88
Red Flare (Millik.) H. M., 1931		79	
Red Radiance (Grinter 1932) H. M., 1932	$\frac{12}{15}$	81	83
Red Robe (Nic. 1931) H. M., 1932	15	81	87
Robert (Ayres 1933)	5		89
Rob Roy (Kirk. 1931)	8	80	85
Rose Ash (Mor. 1930)	5	72	80
Rose Dominion (Con. 1931) H. M., 1932	15	87	88
Royal Beauty (McKee 1932) H. M., 1931, A.		0.0	0.7
M., 1932	11	86	87
Rubeo (Mohr-Mit. 1931)	5		88
Rusty Gold (And. 1931)	15	81	86
Sachem (Loomis 1930)	12	80	81
Sacramento (Mohr-Mit. 1929) H. M., 1931	10	78	82 96
San Diego (Mohr-Mit. 1929) H. M., 1931	8	89	86 87
San Francisco (Mohr-Mit. 1927) Dykes	8	88	87
Santa Fe (Mohr-Mit. 1930) H. M., 1932	5	83	86
Sea Dawn (Nic. 1932)	7	75	81
Selene (Con. 1931) H. M., 1932	20	81	82 70
Senlac (Bliss 1929)	9	68	72
Shirvan (Loomis 1932) H. M., 1932	16	89	88
Sierra Blue (Essig 1930)	11	88	94
Sitka (Essig 1931)	8	82	89
Spring Maid (Loomis 1932) H. M., 1932	15 c	90	81
Springtime (Sturt. N.)	6		87
Starsong (Mor. 1931)	7	88	85
Summer Cloud (Kirk, 1930)	10	82	82
Sweet Alibi (White, C. G. N.) H. M., 1932		•	
Talisman (Mur. 1930)	13		83
Theodolinda (Ayres 1932)	18	79 70	81
Thuratus (Sass, H. P. 1931)	7	79	86 50
Tokay (Nic. 1931)	5	69	78

	NT	1932	1933
Name	Number of Judges	Rating	Rating
Trail's End (Wmsn. N.)	11		88
Tuscany Gold (Wmsn. 1929)	5	85	85
Valor (Nic. 1932) H. M., 1932	19	87	86
Van Cleve (Van Name 1927) A. M., 1930		84	
Venus de Milo (Ayres 1931) H. M., 1932	30	85	89
Vert Galant (Cay. 1929)	9	84	84
Violet Crown (Kirk. 1931)	16	78	87
Vishnu (Sturt. 1930)	5	84	84
Vision (Cay. 1932)	10		88
Waconda (Sass, H. P. 1930) H. M., 1931	10	85	86
Wambliska (Sass, J. 1930) H. M., 1931	18	85	86
War Eagle (Sass, J. 1933)	6	•••••	90
Winner (Sturt. N.)	6		86
Winneshiek (Egelberg 1931)	7	87	87
Wotan (Grinter, N.)	10		84
W. R. Dykes (Dykes 1926)	7	92	89
Zaharoon (Dykes, R. 1927)	10	82	85
Zingara (Wmsn. 1928) A. M., 1930		81	
Zuni (Ayres 1931)	7	69	84

BEARDLESS IRISES

Name	Number of judges	Rating
Abitibi, Sib. (Preston, 1932)	5	94
Appalachee FulvHex. (Preston, 1932)	5	90
Chickasaw, FulvVinic. (Wash. 1932)	6	90
Elizabeth Washington, Hex. (Wash. 1931)	6	93
Eudora, Hex. (Wash. 1932)	6	86
Euphrosyne, Spur. (Wash. 1932)	5	89
Mary Morris, Hex. (Wash. 1931)	6	86
McGregor, Fulv. (Wash. 1931)	6	92
Nellie Kirkman, Hex. (Wash. 1931)	4	82
Sunny Day, Spur. (Sass, H. P. 1932)	5	87
Taskona, FulvVinic. (Wash., 1932)	5	91

MISCELLANEOUS BEARDED IRISES

Name	Number of judges	Rating
Balroudour (Sass, J. 1933)	8	85
Blue Topaz (Sass, J. 1933)	6	82
Gray Cloud (Sass, J. 1933)	3	81
Stormy Dawn (Sass, J. 1933)	4	84
Velvo (Sass, J. 1933)	4	87

DWARF BEARDED IRISES

Name	Number of judges	Rating
Blue Midget (Nes. 1931)	2	89
Laddie Boy (Sass, H. P. 1931)	3	87
Neola (Sass, J. 1932)	4	86
Puck (Sass, H. P. 1931)	3	84
Rose Mist (Sass, H. P. 1931)	3	86
Fony (Sass, H. P. 1931)	5	87

INTERMEDIATE BEARDED IRISES

Name	Number of judges	Rating
Alice Horsefall (Sass, H. P. 1932)	10	85
Ambera (Sass, H. P. 1930) H. M., 1931	4	87
Challenger (Sass, J. 1930)	8	85
Crysoro (Nic. 1931) H. M., 1932	15	89
Cyrus (Sass, H. P. 1931) H. M., 1932	7	86
Doxa (Sass, H. P. 1931)	5	84
Eleanor Roosevelt (Sass, H. P. 1933)	3	. 86
Golden Harvest (Sass, J. 1930)	5	75
Golden Imp (Donahue)	3	80
Golden West (Sass, J.)	5	88
Heloise (Sass, H. P. 1932)	16	85
Maygold (Nic. 1931)	8	80
Nymph (Sass, H. P. 1927)	5	83
Ragusa (Sass, H. P. 1925)	4	83
Red Orchid (Sass, J.)	3	90
Spark (Nic. 1931)	5	76
Sunbeam (Mur. 1927)	3	78
Ultra (Sass, H. P. 1927)	6	85

CLASS A IRISES-90 or above

Battle Flag (Nic.); Brown Betty (White-C. G.); Carnelian (Lothrop); Charlotte Lee (Donahue); Copper Lustre (Kirk.); Dictator (Millik.); Eros (Mead); Golden Light (Sass, H. P.); Gudrun (Dykes, K.); Junaluska (Kirk.); Lady Paramount (White-C. G.) H. M., 1932; Minoan (Mead); Parthenon (Con.); Polar King (Donahue) H. M., 1932.

CLASS B IRISES-85 to 90

Abora (Hill) H. M., 1930; Alameda (Mohr-Mit.); Altiora (Bliss); Arabian Prince (Sim.); Atira (Wmsn.); Australia (Pilk.); Aztec (Kirk.); Black Beauty (Kirk.); Black Warrior (Nic.); Blazing Star (Nic.); Blithesome (Con.); [30]

Blue Gown (Essig); Blue Marble (Kirk.); Captain Courageous (Rowell); Cavatina (Wsn.); Chinatown (Toedt); Colossus (Sass, H. P.); Crown Prince (Kleinsorge); Decennial (Wmsn.); Desert Dawn (And.); Dune Sprite (Shull); Ecstacy (Mor.); Elegante (Mohr-Mit.); Erin (Mor.); Ethelwyn Dubuar (Lap.); Fulgore (Cay.); Genevieve Serouge (Cay.); Giant Baldwin (Sass, H. P.); Gold Vellum (Gage); King Tut, (Sass, H. P.); Legend (Wareham); Lindberg (Arbuckle); Lux (Cay.); Melchior (Wal.); Mme. Serouge (Cay.); My Maryland (Sheets); Mystery (Sturt.); Natividad (Mohr-Mit.); Nemesis (Wayman); New Albion (Essig); Nordic (Kirk.); Odenvogel (G. & K.); Paulette (Mil.); Pink Lady (Wash.); Rhadi (Dykes); Ronde (Mohr-Mit.); Serenade (Hall); Sirius (Bunyard); Spokan (Sass, J.); Van Cleve (Van Name) H. M., 1930.

CLASS C IRISES-80 to 85

Abode (Wmsn.); Alan Hoyt (Hoyt); Amber Wave (Mur.); Andrew Jackson (Kirk.); Anndelia (Sturt.); Angelica (Wash.); Birmingham (Con.); Blue Baldwin (Hill); Blue Bonnet (Egelberg); Bright Balloon (Waller) Bronze Glory (Sim.); Burma (Pilk.); Cadenza (Wmsn.); Cameo (Sturt.); Cantabile (Wmsn.); Cantata (Wmsn.); Carissima (Kirk.); Cherry Rust (Wmsn.); Chestnut (Sass, J.); Cimarron (Wmsn.); Cockatoo (Mor.); Cooley's Surprise (Cooley); Dazzler (Wmsn.); Eleanor Mead (Hudelson); Esplendido (Mohr-Mit.); Flamingo (Wmsn.); Garden Yellow (Sim.); Gay Hussar (Wmsn.); Hydromel (Wmsn.); Hymettus (Wmsn.); India (Pilk.); Jennie Skeels (Mor.); Jerry (Lap.); J. F. Reidy (Toedt); Khalasa (Sherman); Liberty Bell (Donahue); Lillian Toedt (Toedt); Lodestar (Hall); Mabel Taft (Wareham); Mardi (Baker); Mozambique (Mead); Mrs. George Whitelegg (Whit.); Nicholas Poussin (Cay.); Nightshade (Wmsn.); Okoboji (Sass, J.); Purple Giant (Gage); Querida (Mohr-Mit.); Rayo de Sol (Mohr-Mit.); Red Beauty (Gage); Revelation (Kirk.); Rheintochter (G. & K.); Rose of Cuba (Sass, J.); Solitaire (Nic.); Stratosphere (Donahue); Sunglow (Wayman); Sun God (Sass, H. P.); Treasure (Sturt.); Westward Ho (Waterer); What Cheer (Hill); Yataghan (Wmsn.); Yosemite Falls (Essig).

CLASS D-70 to 80

Acushla (Thomas); Ahwahnee (Essig); Akbarx (Dykes); Alcanna (Wmsn.); Amerind (And.); Attitash (Dennett); Azurine (Wmsn.); Blue Gem (Wmsn.); Blue Ribbon (Grinter); Blue Torch (Sheets); Brangaene (Mor.); Canada (Pilk.); Cheyenne (Wmsn.); Comstock (Sal.); Cottage White (Egelberg); Cydnus (Wal.); Dulcimer (Mor.); Elfin Gold (Mor.); Endymion (Sturt.); Envy (Hill); Evening Splendor (Wayman); Fearless (Kirk.); Garden White (Sturt.); Giant King (Sass, H. P.); Gloaming (Wayman); Gray Mist (Grinter); Heyday (Wmsn.); Illuminator (Wmsn.); Independence (Nes.); Indian Gold (Henderson); June Bride (Grinter); Mary Senni (Mil.); Mrs. Wharton (Denis); Old Madrid (Shull); Oregon Beauty (Kleinsorge); Oregon Giant (Kleinsorge); Parma (Edlman); Pirate Gold (Wayman); Pongee (Bretschneider); Red Flare (Milliken); Rippowam (Wilson); Talwar (Wmsn.); Tokeneke (Wilson); Topazin (Sim.); Toscana (Counselman).

The sixty-four judges who participated in the ratings were the following:

Allen, G. A.
Arbuckle, Mrs. J. H.
Ayres, Dr. Wiley McL.
Boehland, G. J.
Bretschneider, E. H.
Connell, Clarence
Donahue, T. F.
Douglas, M. G.
Duffy, Sherman R.
DuMont, Mrs. W. G.
Dunman, W. H.
Everett, Dr. Harry H.
Emigholz, Mrs. J. F.
Gage, L. Merton
Gersdorff, Charles E. F.
Graham, S. L.
Grant, Henry L.
Graves, R. J.
Hall, D. F.
Hanes, F. M.
Hill, John E.

Hinckley, Miss Meda
Hires, Mrs. J. Edgar
Judson, H.
Karcher, Mrs. W. L.
Kellogg, Mrs.
Kinsey, Alfred C.
Kirkland, Dr. J. H.
Lapham, E. E.
Lewis, Mrs. Herman E.
Little, Harry F.
Lloyd, Mrs. Horatio Gates
Lothrop, Mrs. Lena M.
McCook, Mrs. R. D.
McDade, Clint
McKee, W. J.
Nesmith, Mrs. Thomas
Nicholls, Col. J. C.
Nicholls, J. C., Jr.
Pattison, Mrs. Douglas
Peckham, Mrs. Wheeler H.

Phillips, Charles S.
Roe, Mrs. Helen E.
Salbach, Carl
Sass, H. P.
Sass, Henry E.
Sass, Henry E.
Sass, Jacob
Schmidt, Louis
Schreiner, Robert
Sherman, C. A.
Shull, J. Marion
Snow, Euclid
Stoner, Miss Dorothy
Sturtevant, Miss Grace
Sturtevant, Robert S.
Tobie, Mrs. Walter E.
Van Name, Ralph G.
Wallace, John B., Jr.
Waters, Mrs. Silas B.
Wayman, Robert
Whipple, Harvey
Williams, Frank F.
Wister, John C.

Reported by Sherman Duffy

REVIEW

EDITED BY SHERMAN R. DUFFY

Development of tall, large-flowering yellows of real yellow tones—not Mr. Sturtevant's "cool" yellows which come very close to being warm whites or creams—seems the most forward stride in the new seedlings which came under the eye of the judges sufficiently to obtain official ratings.

Of the new yellows, Mary Lee Donahue, Mr. Gage's new seedling, is given a rating of 95 by eight judges. It is described as of deeper color than Pluie d'Or and as large as Ambassadeur, of fine form and substance. No indication as to its height and branching are given in the notes of the judges but as the ratings for stalk are all high, obviously it qualifies in these details.

Dr. Ayres has two new yellows, W. R. Dykes × K. V. Ayres, known only as Yellow Seedlings No. 1 and 2, of which he thinks very highly and which two judges pronounce the highest type in the lighter yellows they have yet seen, one seedling being slightly deeper in tone than the other and both light yellows. These may be sufficiently propagated for introduction next year but it is not certain.

Prof. Mitchell is also reported to have some new yellows that will be astonishers. Lady Paramount, another W. R. Dykes derivative, which California judges declared the finest yellow last year, will be seen in eastern gardens next year as it is now in distribution, so a better idea of its worth as an all around iris may be ob-

tained. Four Southern California judges are unanimous in giving it a rating of 98 this year, showing that it looks even better to them this year than last and they have observed it for three seasons. It is a light yellow.

Of the older yellows, Pluie d'Or and Coronation this year in the ratings reach parity at 87 with 9 and 7 judges respectively. Opinion is about evenly divided as to which is the better. There certainly is little to choose between them, Coronation seeming to the writer to be the more consistent in holding its deep and even color.

Ashtoreth, among the older pale yellows, achieves considerable acclaim and it seems a toss-up between it and Chromylla this year, Chromylla being off the form it has shown in past seasons both in the writer's garden and in others where it was noted. Ashtoreth seemed better than usual. Both are excellent irises of their type. Twelve judges rate Ashtoreth at 88 and 25 give Chromylla 85.

Phoebus of Cayeux, in the writer's opinion, is as fine as any of the light yellows of this range, a beautifully finished iris of fine stem that nine judges rate at 87. There is a wide field for choice in this lot with others in the offing.

Phosphor (Shull), given 83 by 17 judges, was discounted because of its color. It is not a pure yellow in the falls but has an olive cast. It is a distinctive iris of fine quality and possibly should not be discounted because of color but accepted as distinct.

Two white irises have achieved solid rank as of the very finest quality and were admired by all the judges wherever seen. These are Easter Morn and Venus de Milo, rated respectively 91 by 22 judges and 89 by 30 judges. Easter Morn has had fairly wide distribution and in the writer's garden seemed as hardy as any iris, withstanding a winter in northern Illinois as trying as could well be of thawing and freezing, without protection. I had intended protecting it but forgot it until February when it was given a light mulch, but up to that time it had undergone extremes of temperature so that a few more could not have made any difference. was a early bloomer and gave a better stalk and finer quality of bloom than in Mrs. Pattison's garden at Freeport as it escaped the torrid wave that set in during show week at Freeport. ing of the standards, criticized by some judges, is much more apparent in hot weather and was hardly noticeable in my garden. Although the outline is of an oval on its side in the extreme heat, there is no lack of substance and the standards do not collapse. It is as fine a white as could well be wished.

Venus de Milo, Dr. Ayres' white, is of different form and type from Prof. Essig's beauty and is a vigorous growing, free blooming iris of greatest value, a warmer white than Easter Morn.

These irises were observed blooming with Shasta, Purissima, Wambliska, Michelline Charraire and others, both in the writer's garden and at Freeport. When Purissima functions at its best, it seems hard to believe there can be a better white. Seven judges give it 84, which is underrating it so far as bloom and stalk are concerned, the chief discounts being for vigor. Shasta remains a superlative white and even the newcomers haven't moved me to want to give up Michelline Charraire, which only a few seasons ago seemed the last word in whites.

Mr. Jacob Sass expects to introduce one or two of his highly praised whites next year. One of these, several judges pronounce, as fine as a white can be. Another, a sister seedling of Pink Satin and Wambliska cross, is highly praised for the purity of its whiteness. The white iris seems to have reached all the perfection that can be asked.

Hans Sass' new white, Oriana (New Albion is very similar.—Ed.), a plant of medium height and size, was rated at 87 by nine judges and was liked by every one who saw it. It seems the finest of the lower-growing white irises. The writer, despite the flood of new whites, still clings to White Queen and La Neige, although there are some twenty odd other whites in the garden giving all together too pure and chaste an atmosphere to be natural. Of the lot, Easter Morn, Shasta (I should add Sitka.—Ed.), Venus de Milo, and Wambliska are the pick with the others yet to demonstrate.

Approaching a white and hailed by western judges who visited in the east as the finest new seedling viewed is Mr. Gage's Gloriole, a combination of white and pale blue that eight judges rate at 91. Mr. Essig's Pale Moonlight comes along here, seven judges rating it at 90. Wambliska showed more blue this year than I had ever seen it display in one or two gardens. Eighteen judges give it 86 and it is one of the reliables, apparently.

Polar King, the most highly rated and praised white last year, has not been sufficiently distributed to obtain a rating, four judges turning in figures that indicate that it has somewhat receded from the extravagant ratings of last year but that it remains one of the very finest whites rating above 90. Last year it seemed to be

judged finer than Easter Morn. This year some of the judges have changed their minds and one comments that Purissima when at its best is the finest of them all.

In this connection, an interesting feature of the ratings is the growing esteem for Los Angeles, which should be considered a white in garden effect rather than a plicata. Reliably hardy and vigorous, fifteen judges this year raise its rating to 92. Nothing finer can be imagined than the block of it in bloom in Mrs. Pattison's garden at Freeport.

Among the whites yet to be displayed is Parthenon, a new seedling of Mr. Connell's that does not obtain a rating this year but by three judges is placed in the 90 and up class and pronounced the finest white of them all by one of the judges who has seen and rated Polar King and Easter Morn.

The Mohr-Mitchell Natividad described as a white, one judge says, should be more properly rated in the yellow division as a Ridgway test so places it. It rates in the 85 to 90 class unofficially and seems to be a fine production. An interesting point raised during the Freeport meeting was as to whether or not we are less sensitive to gradations of yellow than to those of blue or red.

Of the new pinks, none have come under the writer's observation except Imperial Blush, Hans Sass' new light pink, which gave fine bloom for the last two seasons of fine height and beautiful color, approaching Pink Satin in tone, and regarded by a number of judges as about the finest of the pinks. Fourteen judges give it 87, eastern judges giving it low ratings in one or two cases, which indicate that it could not have been in the form in which we are accustomed to see it in the middle west. Its branching could be improved. Dog Rose gets a better rating this year, 14 judges placing it at 85.

Pink Satin vindicated itself this year and was in its best form, as fine a pink as there is, if not the finest when at its best. The comment of the judges this year was favorable in general, one being characteristic—"There has been time for the resentment at overpraise of this iris when first introduced to recede. It is the finest pink I have ever seen." The rating of Pink Satin by 16 judges was 87 as compared with 79 last year.

Blue-toned irises sprang to the front this year more importantly than in any season since Sensation and Realm were brought forward. Some unusually fine blues were shown, notably Mr. Grinter's No. 25, which attracted great admiration and high rating by the judges assembled at Freeport for the annual meeting. In Mrs. Pattison's garden this iris gave a beautiful stalk of bloom which caused it to be called the "perfect light blue." Mr. Grinter's Missouri, a slightly deeper tone of blue, was also greatly admired. Twelve judges rated Grinter's No. 25 at 93, the highest figure being 98. It came close to being as faultless an iris as we are likely to see in its form of 1933.

Mr. Grinter's Missouri, 89 by 18 judges, was also greatly admired. Mr. Jacob Sass' Blue Monarch, notable for the purity of its blue, was another fine blue that seems to have a fine future, a big and fine quality flower that will improve with establishment. The writer has seen this two years and a rating of 86 by nine judges is conservative. (The Essig blues, Pale Moonlight (90), California Blue, Sierra Blue (94), Pacific should be remembered.—Ed.)

Cayeux's Fortunio had divided opinion, a dark flush at the end of the beard being regarded by some as a fault and by others as giving character to the flower. Six judges gave it 85, none too much.

Many of these newer blues have Sensation in their parentage, this fine Cayeux blue apparently being an excellent parent. It and Realm, Zampa, Gabriel and others hold their own with the newer blues as does the old Crusader in two-toned blues.

Aline, a Hoogiana derivative, little known in the United States, is reported by one judge as having the finest tone and quality of blue he has seen.

There are now so many irises known as red—that is, red in effect although either red violet or brown red—that it is merely a matter of paying your money and taking your choice. They are an exceptionally fine lot of even quality.

The debate of last year between Joycette and Ethel Peckham came in for review again this year. In last year's notes some of the judges declared them identical in color. This comparison was made again this year at Freeport. While Ethel Peckham was not in its best form as to stalk, being shorter than it should be, the bloom was said to be typical.

The standards of Joycette seemed plainly redder than those of Ethel Peckham while the falls of Ethel Peckham were redder in tone than those of Joycette. Joycette has the better balanced stem and to the writer seems of superior quality with little to choose as to color.

Of the new red-toned irises, Burning Bronze from Dr. Ayres seemed one of the most striking. Of the lot of so-called reds, the writer would be thoroughly content with Joycette, Burning Bronze, Indian Chief, and either Hernani or Cheerio, probably the latter when available because of the brilliance of its falls, and for the closest to red tones, Numa Roumestan. And there are a lot more in the offing that might change this selection another season, Mr. Jacob Sass having an improvement on Joycette that bloomed in the writer's garden and some gorgeous red browns in Spokan and other King Tut derivatives, besides his huge War Eagle also on the red purple side.

Of the red-named irises which aren't red Red Dominion and Red Robe seem as fine as any of them; the latter bloomed in the writer's garden with a stem of finer quality than was expected from criticisms from last year, although on a late-planted root. The color is excellent. The normal height is yet to be determined in the writer's garden as the stalk was short. The plants in Mrs. Pattison's garden also were last year single divisions not established.

Red Dominion holds its own with the best of them.

Of the newer bicolors, Valor seems about the best sighted, a fine and stately iris, which judging from the bloom in the writer's garden, shaded from afternoon sun, and that in Mrs. Pattison's garden in full sun gives better color with the shade. The standards were bluer in tone and gave a finer contrast with the falls and their tone of red than the blooms in full sun. It is not close enough to Sir Michael, in the writer's opinion, to offer a choice between the two. Valor is taller and larger. It is in the same general color range with Sir Michael and Petrucchio and a brilliant iris.

Of the variegata types, Aurex and Vision were the best seen, the two being close to the true variegata type. Aurex is the biggest and most imposing of this type this writer has yet seen. Vision has fine clean color contrasts.

In the class which might be called variegata blends as they incline to the yellow bicolor type, Mrs. Nesmith's Cortez, which rates at 94 by six judges, seems easily the leader this year. It is described as a yellower and darker Reverie. Hans Sass' El Tovar finds a rival in Jeb Stuart. The latter is described as having redder toned falls inclined to black and the former to have yellower standards.

THE WASHINGTON HYBRIDS

GRACE STURTEVANT

I saw for the first time this year some eight or ten of the Apogon hybrids raised by Mr. T. A. Washington, of Nashville, and I was charmed by their unique coloring and distinctive form—a race by themselves with a perfection of finish and poise that makes a picture of each clump that would defy criticism from a judge of flower arrangements. I like them so well in a new planting that I question whether I ever want them in masses—they are so lovely in silhouette against a simple background. In time of bloom they come with the Spurias and before the Japanese but their duration is none too long.

Ten or more years ago Mrs. Washington, a lover of gardens and a collector despite her eighty years sent her son each winter such wild irises as grew in the swamps about Natchez, Miss. Hence, even before they were named, by Dr. Small, he had plants and seedlings of varied colorings and it is from this collection that distinct forms have been offered for our gardens.

The flower form of the fulva hybrids is similar to that of Fulvala and Dorothea K. Williamson but the stalks are erect, slender but strong, and carrying the flowers well above the foliage. In this they compare with the Siberian though the growth is more open and in other conditions may spread as in Fulvala. Five of these were in bloom when I visited Fairmount Gardens (Mass.) and I like Mc-Gregor best—a garnet brown to Oxblood Red (Ridgway) not as deep a color as it sounds and a hue which, in Bearded irises I have only found as a flush in the falls of Reverie. There were three blossoms out on one stalk, the stalk short branched but zigzagged and giving a dainty poise and well balanced carriage. Taskona (orange vinaceous to Etruscan red) is really a deep warm pink unique in my experience except for an unnamed seedling in Prof. Essig's garden. Chickasaw, a rich vinicolor, was a dark Bordeaux red, of fine velvety substance; Appalachee a larger red-purple showing its hexagona blood.

Also of hexagona parentage were Nellie Kirkman (Ageratum Violet), Eudora, a more brilliant hexagona with a large conspicuous



signal of cadmium yellow, Mary Morris (Vinaceous lilac), rather ashes of rose tints and Elizabeth Washington quite the bluest iris I have ever seen, a true Deep bluish violet to Violet ultramarine (Ridgway) with a contrasting though small signal patch of brilliant yellow.

Euphrosyne, the only Spuria hybrid seem is similar to Mrs. A. W. Tait but even finer in its clear blue. Incidentally Sunny Day (Sass, H. P.) of ochroleuca coloring is lovely.

Mrs. Nesmith grows all these under what I should call good vegetable garden culture and soil. Many were planted late last fall and covered with marsh hay and she has had no losses. They seemed even happier than the Japanese grown under the same conditions. Fulva, of course, has always been shy with me but it has lived down in the wild garden with no special care.

On a first visit one seeks to see irises only but I found in bloom delphiniums, both the hybrids and chinensis, climbing roses and many, many new hemerocallis. I want to try the odd shades of fulvous pinks and reds with day-lilies like the pale Viscountess Byng, Dawn, or Sunkist, all combinations for a vase or near effect. Then in vivd contrast might come the clear orange almost salmon of Hemerocallis Cressida with the ultramarine iris Elizabeth Washington. One of the charms of new colorings is the new opportunity for their combination in the garden and certain of the day-lilies are as novel as the Washington hybrids.

IN SOUTHERN CALIFORNIA

E. O. Essig, Berkeley, California

On a business trip to southern California in May, I had a golden opportunity to visit some of the iris enthusiasts there. To pass through the land of oranges when the trees are heavy with beautiful white, waxen blossoms and the air impregnated with their delicious odors is a fitting approach to an iris garden. As a matter of fact practically all of the Southern California iris gardens are either surrounded by or are actually in orange groves.

Naturally I was first attracted to the display gardens of the Millikens, where familiar faces were ready to welcome me. I cannot permit myself to discuss personal interests here, but I must say that it is a great experience to see hybrids mingled with those of other breeders growing nicely in gardens miles from their place of origin.

It was a good iris year in Southern California. There was a wealth of vigor and color of exceptional merit. There I saw new things from England, France and from the East and Middle West. What a display! Who can say which is best? You must admire them all. Asphodel, Festive, Picador, and Rose Ash of Morrison; Jadu, Pink Jadu, Cameliard, and Vishnu of Sturtevant; Carnelian, Gold Lace, Rae, and Theme of Lothrop; Clara Noyes of Sass;

Dauntless of Connell; Dolly Madison of Williamson; Henri Riviere of Millet; Rayo De Sol, Los Angeles and San Francisco of Mohr-Mitchell; Canyon Mists and Mauna Loa of Berry; Parma of Edlmann; Mt. Whitney and Red Flare of Milliken and right at home; W. R. Dykes of Dykes; and Coppersmith of Shull; and many others were viewed with satisfaction and pleasure. Mr. Milliken also had a large bed of promising seedlings which were particularly interesting to me.

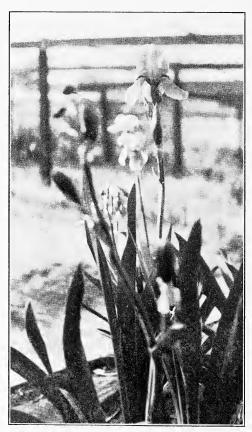
In spite of a light drizzling mist, I enjoyed the afternoon. Another night I was privileged to see the Milliken exhibit at the Pasadena Flower Show and I do not recall having ever seen such a splendid display of absolutely perfect flowers as were shown in large naturalistic groups in the center of the great hall. Dr. Berry was also there with a very large commercial display of some hundred or more varieties.

On the following day I visited the gardens of Mrs. Lothrop at San Bernardino, where were growing her own beautiful hybrids: Cornelian, Gold Lace, Rae, and Theme amidst a setting of many standard varieties and novelties and a great many more new creations which are a delight to every breeder. Among her seedlings I specially liked Wistaria (named but not yet introduced), because of its beautiful color and the form of the individual flowers. In fact I think I liked it best of all the varieties growing in her garden.

I do not want to omit a mention of the beardless species of the I. hexagona type. Many of these, collected in the Southern States, are growing in all of the gardens visited and some of them are perfectly magnificent, both as to color and form. Dr. Williams at Patton, has made a speciality of growing them and there is a great new field ahead in his hybridization of this group. He had the finest specimens growing in artificial bogs that I ever hope to see. Already he has introduced one, Laurentia, but he has a lot more coming.

It is always a great pleasure to hunt out Dr. Berry in his irises, narcissi, and orange trees. As on two other occasions he was found to be exceedingly busy collecting flowers for the show to be held at Pasadena on the following day. This, however, was more than the visit of a mere iris grower for Mrs. Lothrop and Commander Monroe were of the party and our host very generously gave us of his time. In his garden are many fine varieties including of course all of his own creations. Among his newer hybrids we saw Acropolis,

Taffy, Bernardino, Palomar, Flush of Dawn, Colonial, Penumbra, Erebus, Mazama, and a host of new seedlings obtained from many of these and especially of Acropolis, Erebus and Mazama. It was a fine bright afternoon and already the season was so far advanced that only a few straggling flowers were to be found on the earlier sorts.



Lady Paramount (White, C. G.)

Our party of three continued to our destination for the day, Whitehill, the home of Lady Paramount, the chief object of our pilgrimage. Mr. White was in the garden and first showed us his magnificent display of roses, all growing under lattice, and after some general discussions and a considerable period of anxiety upon my part, he led the way to the iris beds, also under lath and then I saw Lady Paramount. I had heard about this fine new yellow iris,

a hybrid of Aurifero and W. R. Dykes, and had tried to picture it in my own mind. And there it stood a good four and one-half feet high, perfect in size, form, and texture, brilliant in soft primrose yellow, a really magnificent flower in any color and the more superb because of its clear yellow tones and firm silken texture. There were two good clumps of it growing some little distance apart and they were both good. The large and vigorous foliage and good stem are more characteristic of the seed parent and the general form and color of the pollen parent. It is slightly paler than W. R. Dykes but everything else about it is a marked improvement. I think it is by far the finest yellow so far introduced and believe that it has a splendid future. Congratulations to Mr. White! He had other fine hybrids, Brown Betty, Son Robert, and Sweet Alibi, but Lady Paramount blinded me to all others.

CALIFORNIA NOTES

Lena M. Lothrop

The Iris achievement of Southern California, perhaps of the Iris world, for 1932 occurred in a Redlands garden.

On March 29th the telephone rang and the excited voice of Miss Hinckley called "You must come over at once and see Mr. White's yellow seedlings. Tell Dr. Williams."

In spite of the imperative summons we were unprepared as with yard stick, rule and notebooks we filed down the path in Mr. White's Iris garden. There by the side of the path stood Lady Paramount. Such an Iris we may have dreamed of but had never seen. When we had done homage to her we found Son Robert farther down the garden way.

Son Robert has more flaring falls; otherwise there was little apparent difference but we all agreed that Lady Paramount was the lovelier. Mr. White said it was the beautiful soul shining through and we had to admit that it did possess an indescribable quality that could not be attributed to form or color. That same elusive charm can be observed in Aurifero.

In order that you may in a measure visualize these Irises as we saw them please get out the four-foot rule. Lady Paramount stood 44 inches that day. Now put your finger at $2\frac{1}{2}$ inches. All the petals were $2\frac{1}{2} \times 2\frac{1}{2}$. Slide your finger down to $1\frac{1}{2}$ inches, the width of the haft!

The substance was thick and the color a clear luminous yellow frosted with gold dust. There were no brown reticulations in the haft nor unsightly shadows on the falls. Mr. Duffy did not have these Irises in mind when he wrote that the new yellows were pale for Lady Paramount and Son Robert are really yellow comparable to Pluie d'Or.

W. R. Dykes was the seed parent of both; Aurifero the pollen parent of Lady Paramount and Mirasol the pollen parent of Son Robert.

Another huge yellow stood just beyond Lady Paramount. In the one year it produced four fans. From the end of each fan grew a giant stem of bloom. It became thereafter a delightful memory only.

We took notes that day of a white seedling (10-c-4). The large petals were round, each having its narrow ruffled edge. The white was very pure and the delicate greenish veining in the haft added to its cool whiteness. This flower was of peculiar interest because the record of its parentage read Purissima \times Susiana. In the shape of the petals, in the cockled surface, and in the broad beard one got glimpses of Susiana. It was a beautiful flower and I hope to see it in many gardens.

Early in April we saw in Dr. Berry's garden a clump of his Erebus. Its parentage is (Mesopotamica \times Lent A. Williamson) \times Mme. Gaudichau. The height of stem, 43 inches, can be traced to Meso, the rich purple falls and bronze hafts to Lent A. Williamson, and the beautiful form to Mme. Gaudichau. All children of Mme. Gaudichau are not outstanding in color but very many are a joy to behold because of beauty of form and poise—in this respect excelling herself. The standards of Erebus are deep Hyssop Violet, the falls Raisin Purple running up to Walnut Brown in the haft and, as is fitting, the beard is bronze. The large 5×5 -inch flower is in good proportion to the stem. Erebus reminds me of Germaine Perthuis, which blooms later. My fellow judges did not agree in this likeness but both Irises are dark purple and both have bronze hafts. Germaine is a shy bloomer with us but Erebus is free.

Mazama was another beautiful Iris in Dr. Berry's garden. It is a tall raspberry-red self, well branched and right in every way. The color is soft yet compelling—drawing my eyes again and again to where it stood out clear and distinct among the others.

Colonial (Berry) is a smaller, softer, smoother (in color) edition of Cameliard. A sweet and gentle Iris.

Penumbra (Berry) is a large Iris of rich and decided contrasts. I like best smooth colors so this is not a favorite of mine. For the same reason I do not care for Petrucchio or Melchior.

Bernardino (Berry). This is an Iris to rave about. The contrast between the colors of falls and standards is irresistible. Light blue are the standards and the wide flat falls of the finest silk velvet are red-purple. Above the foliage which is almost yard high tower the graceful stems and exquisite flowers.

The month of April was almost gone and the Iris season well on its way when Miss Hinckley and I, wandering into Mr. White's garden, found Sweet Alibi (Ivory 1–D–5). In size and height it equals Lady Paramount, having wide hafts and huge round petals. The color is a clear frosty light yellow self with no veining or clouding. I tore portions of both standards and falls for checking by Ridgway and was amazed at the thickness of the petals. According to Ridgway it is Primrose Yellow brightening to Picric Yellow in the haft. Mirasol is the seed parent by the rare pollen of Purissima.

Dr. William's greatest interest lies with the beardless Irises. Pollen of fulva carried to a white, known to us as "hexagona alba," brought him an astonishing variety of Irises. One of them, Laurentia, is to be introduced this year. It is a beautiful warm rosy red-purple with velvety surface. Another of this same cross, L-L-1, is dress-gingham-blue, and 2-x is pinkish gray—a difficult color but reminding me of the lovely winter coat of the female grosbeak.

Lilybelle (Williams) is from the unusual cross of versicolor on orientalis Emperor. Other good seedlings from the same pod include one of a deeper clearer blue. I consider these very worthwhile. They have the graceful foliage and erect stems of the Siberians with much larger flowers.

While mentioning unusual crosses Dr. Berry's Hamadryad should not be overlooked. It came from ensata pollen on Watsonii. The flowers which are of Watsonii type are very lovely. On two occasions I remarked that it was the prettiest flower in his garden.

Tioga (Salbach) I liked on first sight. Nice compact form, rich blue-purple with velvet falls. It seemed distinct from other blue-

purples. In trying to make a list of first class blue-purple Irises I found there were not many so this is needed.

Gold Top (Salbach) is one of the new large variegatas. The standards are flushed with lavender. The falls are a medley of colors. This is a long step in this color class but I was disappointed that the standards were not a brighter yellow and that the falls had not a good solid color.

San Diego (M-M) is another one of the few good blue-purples, being bluer than most. The large round petals are edged by a tiny frill.

Alta California (M-M) as I have seen it is a nice deep yellow, rather opaque in effect. It has medium-sized flowers on stems about 36 inches tall. The form is unlike other yellows—it is more formal.

Elegante (M-M) is a very attractive flower. Its shade of lavender is uncommon among Irises. There is a decided smear of gold across the upper part of the fall and haft and there is a bright gold beard. The well-formed flower is large and both substance and texture are good. Four critics agreed that it was a lovely flower. One of the four said it had an ugly stem; another said the stem was short for the size of the bloom; the third said the color was muddy; the fourth was content to admire it and all liked it. The plant was small—the stem may be better.

Sierra Blue (Essig) is one of the best huge blues. It is a very impressive Iris. The texture is smooth and fine.

Yosemite Falls (Essig) is another enormous blue, deeper in tone than Sierra Blue. It is quite thrilling because of its size and clear color. The stems which I saw were not tall enough for the immense blossoms.

Easter Morn (Essig). I cannot yet say that I think this fine Iris is better than Purissima, for to beat perfection is hard.

Red Flare (Milliken) is decidedly different in color. There is Oxblood Red in the falls but the effect in the garden is a bright tile red. With its floriferous habit and carrying color we had thought it a distinctly garden Iris but found it equally charming in the house. The stems are slender and well branched. I grew it 48 inches but it is in better proportion when it is content to be a modest 36.

I was asked to not omit mention of my own seedlings in this account. These few have all received the H.M. of the Society and all have won blue ribbons.

Theme (Lothrop) is a huge dark blend on wide branched stems 44 inches tall. The colors include bronzed grays and tans with lavender reflections and veinings of violet and purple. In addition to winning the blue ribbon in its class this Iris was selected as the most outstanding entry in the 1932 San Bernardino Show. It is a seedling of Mme. Durrande.

Mme. Durande is also the mother of Gold Lace, which grows on tall graceful stems. The standards are old gold and the old gold falls are overlaid with pinkish lavender. It is a remarkably free bloomer and a willing seed bearer but has no pollen.

Rae, the Lothrop addition to the yellow class is not ashamed in any company. The color is clear and the form good. The falls flare. The well-branched stems grow about 36 inches. It is a dependable Iris. Its blue ribbon was won from distinguished competitors.

Arbutus (Lothrop) will make her debut this year in Mr. Milliken's catalogue. She is a seedling of Mother of Pearl x Dejazet. In size and height it resembles Mother of Pearl. In color it is a smooth rosy lavender over light yellow. Its remarkable resistance to bad weather is shown by its fine close texture and good substance.

April (Lothrop). The flower on tall widely branched slender stems, has Sulphur Yellow standards with lavender reflections. The falls are Wistaria Blue. The lower part of the beard matches the blue of the fall. It is a graceful Iris in an unusual color combination. The golden sunshine and blue skies of April suggested its name.

COLOR

E. N. S. RINGUEBERG, M.D.

Color has always intrigued me; I find myself led on from one recollection to another by the hope of gleaning some light that shall serve to illumine the pathway of one who seeks to solve even some small portion of the problems of color or its classification.

Nature started with the triad of primary colors, red, blue, and yellow. Dipping her brush first into the blue and then into the yellow she produced the green of chlorophyll, that basic element found in the vegetable kingdom. Having created the restful greens as a foil and background she used other colors for the fruits and flowers upon which the perpetuation of the race depended,—colors

in such variety that unsatisfactory results of various attempts at classification are due to many reasons.

We have to recognize, first, the fact of a definite lack of education in the recognition of even the elementary colors. A standardized nomenclature should form a part of our regular primary education. "Color means very different things to different people."

Then in contradistinction to the above large group we have the few over-specialized observers who over-emphasize the small quantity of one or another color entering into the composition of a certain hue—what may be termed the lavender school of specialists.

Accurate classification in irises is further complicated by the fact that while the yellow plastids are fairly stable, the red and blue appearing in anthocyanin are not, the red apparently more easy of diffusion than the blue. In certain seasons there may be a pinkish glow as Mrs. Kellogg wrote me in 1930 concerning Duke of York which had become hardly recognizable. Again Chalcedony in 1930 had a scarcely perceptible pinkish flush and in 1931 almost blended with Jane Williamson in my garden.

The relatively pure selfs and near selfs of the blues, reds, yellows, and whites are a natural basis for classification despite the absence of a primary color except in yellow. The Schreiner (and Wister) classification of 1926 had four major divisions, white, lavender, blends, and yellow, but recognizing its inadequacy he later adopted, as more rational, the blue, red, purple, yellow, and white with, of course, some necessary intermediate subdivisions. Most could accept as sound his major proposition but there were always border line varieties. But of the decided colors there could be no question—to name a few at random there is the pale blue of Corrida or Yvonne Pelletier, the distinctly red tones of Seminole or Opera, the yellow of Aurea or Gold Imperial, the white of others. An obscuring smoke screen can be thrown up by pointing out that Corrida is not a pure blue nor Seminole a true red.

When we leave the safe ground of the comparatively true selfs with their subdivisions of bicolors we immediately step off on the treacherous ground of the blends or that of the equally uncertain misfit bicolors—there should be some other term to distinguish these misfits from two-toned bicolors of two shades or of closely related

^{*} Color Standards and Nomenclature, R. S. Sturtevant. A. I. S. No. 6. "The Scarlet Iris," W. J. Caparne, (Eng.) No. 6, with an accompanying chart of prismatic colors.

hues. The arbitrary designations Variegata or Amoena are commonly accepted and based on the colors of the standards—Plicatas also which are rather easily classed with whites but here again when we depart from a strict adherence to the typical we immediately encounter trouble. The term Variegata is stretched to include so many colors that the original yellow of the standards is scarcely recognizable and in the Amoenas the inclusion of things like Mrs. W. J. Fryer and B. Y. Morrison, which has never bleached out with me, obscures the definition "white standards." In the Plicatas too there have been such radical changes that a thing like King Karl is classed as a yellow blend. Many a variety will always be a bone of contention.

The English have a custom of dumping almost all blends into either shot shades light or dark, thus leaving the decision to the optimist (light) or the pessimist (dark) as chance may decide. It also allows an award to be made in the same show in the case of Morning Splendour in the red-purple class as well as in the shot shades dark.

Incidentally I wish to enter a protest against much of the unnecessary use of the term "lavender" (defined by Webster as "the pale purplish color of lavender flowers, paler and more delicate than lilac") as it has gathered unto itself both a definite meaning and many charming associations. The term "atrocyanin" could be adopted to advantage as descriptive and so alien that it would never come into general use except by technicians.

The need of color chart descriptions is not to be questioned but we also need intelligible descriptions of the color effect in the garden if we hope to further the popularity of the iris, for we must remember that the average person is not interested in the reason that lies behind a classification that has stretched a term so as to cover the entire range from sky blue to a brilliant reddish hue.

We may well get our best reds via Variegata as it is there—as Mr. Caparne points out—that we find warm reds without much, if any, blue in their composition. Then there is left the contiguous orange still in the future to complete the rainbow effect of color in the iris. This has been suggested only, as in Mrs. Neubronner or Zingara or, in a blend like Valencia perhaps, where the effect is due to a visual blending of the separate red and yellow as observed from a distance and not to a blending of the colors in the petals.

In her last catalogue Miss Sturtevant hazards two guesses as to the cause of the dislike of the variegata combination: Do they lack novelty or is it contrast of vivid color and lack of height and size? Sprengler in his "Decline of the West" states that "yellow and red are popular colors, the colors of the crowd, of children, of women, and of savages." Considering them separately perhaps he is right but in juxtaposition the effect is often distinctly jarring as they are neither sufficiently close in hue nor directly complimentary. And in iris, when we attempt to mix them often there is a trace of the omnipresent blue or rather "violet, a red succumbing to blue," with the result a brown which may be clouded or muddied but may also be "atmospheric, the one major color that does not exist in the rainbow" to again quote from Spengler. The browns may lack individuality but may be even necessary as adjuncts in painting the garden picture serving as foils for the more intense colors.

Having swung around the circle from the blue to the purple to the red, orange, and yellow we reach green—as a clear color almost non-existent in iris flowers but found occasionally in venation of haft or petal and perhaps intensifying the purity of an iris like Snow White. It dulls many a pale yellow and darkens many a Korolkowi hybrid. They remain so few that we are not justified in creating subsections of our classifification for their reception.

With purples however it is a different question. They may be placed on either the red side or the blue side as fancy dictates. Apparently there is no place for a real purple if we classify only red-purple or blue-purple. With me Lady Lilford is a real purple but I find it classified as a blended bicolor dark. Harmony is a typical blue-purple, Kochi a red-purple whether it be called claret or violet, a term which I have come to class with those other indefinite definitions of orchid and lavender.

We still have much to learn about colors. Some day we restless mortals of the occident may hope to attain to that subtle perfected sense of using strong colors that seems instinctive to the oriental. "At some future time we shall know why our favorite color is more than a whim. Why the Greeks may not have been able to distinguish the full gamut of our spectrum, and why rainbows are so narrow to our eyes in comparison to what they might be." Perhaps also we may sometimes have an adequate classification and also, perhaps, adequate catalogue descriptions.

 $[\]ensuremath{^{*}}$ The Edge of the Jungle, p. 54, by William Beebe.

NEW ENGLAND NOTES

REPORT OF THE REGIONAL VICE-PRESIDENT— MRS. THOMAS R. NESMITH

For some time it has seemed to me that the A. I. S. members in this region were not doing really constructive work for the Society and that monthly meetings for discussion would develop added interest. The enthusiasm of the first meeting attended by the accredited judges and a few others has continued and even more progress is expected this coming year.

The compilation of the list of irises to be recommended was a first step and lists were published both here and in *Horticulture*.

The much discussed rating question led to plans for more careful and comprehensive scoring this last spring. In thus trying to assist the Committee on Awards we felt the need of more accredited judges in this locality. It is really up to the Regional Vice-president to make such recommendations as the one who naturally knows the members.

In this judging we asked each member of our group to submit lists of eligible varieties which they wished rated and to report of any new hybridizers or seedlings. We then went over the lists and planned so that five or more judges would visit each garden at least once. Whenever possible we went in groups, thus making transportation simpler and the trip a sort of holiday affair. We have, however, been very careful to do our scoring individually.

We felt also the importance of the Beardless irises and rated many. I strongly recommend that ALL judges rate the Beardless another year.

As a result of these visits ratings on some 200 varieties have been made in this region and the gardens visited grew many foreign as well as American introductions. At present we have fourteen judges available but we shall need even more.

Classes for both amateurs and professionals at the Boston Show proved excellent and the use of roots of fine varieties as prizes is an excellent stimulant.

Our monthly discussions lead to suggestions to the Board of Directors and it is only through such suggestions from members that our Directors can learn of the general reaction to the changes in policy that they initiate. Our idea is that if more Regions would "get together" and have some formulated plan of action, instead of criticism of the work done by our long-suffering officers, that we would have a much closer spirit in the Society and the results would be very beneficial. It means many hours of hard work but, after all, have we any right to criticize unless we are willing to do our part?

THE BOSTON SHOW—WILLIAM J. MCKEE

Notwithstanding the fact that the blooming season in New England was at its height about June 1, a splendid representation of iris was exhibited in fine condition at the show held in conjunction with the Massachusetts Horticultural Society on June 7–8.

Mr. Donahue won the Gold Medal of the M. H. S. for the most points, Mr. McKee the Bronze Medal (A. I. S.) as second) while Miss Sturtevant won a Silver Medal for the best stalk—Pale Moonlight, carrying four large blooms. Mr. McKee, in the forty class, and Mr. Donahue, in the twenty-five and for the most points in the single specimen class, won medals. The subdivision into twenty-four color groups brought out an unusually large entry.

Amateur competition was keen and won by Mr. McKee, while Mrs. E. S. Webster won the Silver Cup as a new exhibitor of irises.

The artistic arrangements shown in shadow boxes demonstrate very clearly that iris can be arranged as effectively as other flowers. The Haverhill City Club won the Silver Bowl for the year. This was given by the New England Region.

Both the seedling class and the educational exhibit put on by Mrs. Nesmith were of marked interest and it is worth noting that only single stalks of seedlings were shown.

Among outstanding varieties were Pale Moonlight, Polar King, Mary Geddes, Anne Marie Cayeux, Alcina, Blue Velvet, Los Angeles, San Francisco, Pluie d'Or and Coronation. Hollywood, a blended pink and yellow, attracted much attention and also the dark red-violet Abora, the pink-flushed Ambrosia, and the older Cameliard. Rameses, Royal Beauty, Nusku were all shown in splendid form.

VARIETAL NOTES

Ashtoreth (Beaudry). A very large-flowered pale yellow on a tall well-branched stalk that appears to have received much less recognition than it deserves since the H. M. award in 1930. This year it was the most outstanding large pale yellow in New England.

Blue June (Donahue). A handsome medium blue self of large size and good form, carried on a tall, well-branched stalk,—a prolific bloomer.

Cortez (Nes.). An intensified Reverie, of which it is a seed-ling—late, tall, well-branched, the velvety red falls in contrast with the bronzed standards—one of those delightfully undescribable blends, its rich tones washed with ecru and rose. 42 inches.

Eclat (Gage). A yellow with a bright orange beard that stands out for garden effect,—flowers of fine form and substance.

Gloriole (Gage). (Souv. de Loetitia Michaud x Queen Caterina). A very large light blue self overlaid with glistening white; well branched on a 42 inch strong stalk on which the flowers are well placed.

Jeb Stuart (Wash.). A fine deep brownish red that is quite distinct in color from other iris in this color class. The blooms are large, well shaped and of good substance; the falls very velvety and the beard deep orange.

Madame Recamier (Wash.). One of Washington's new varieties; a beautiful shade of soft real pink with a yellow undertone. The flowers are of good size, beautifully formed, with slightly flaring falls; stalk 44", well branched.

Magi (Sturt.). Very suggestive of Dolly Madison but pinker in effect. It seems too good to be true if it really makes as lovely a clump when established.

Maluska (Nes.). A Shekinah seedling of an even redder purple than Royal Beauty. The 39 inch stalk heavily budded and well branched, the gold beard intensifying the almost self-colored flower.

Mary Geddes (Wash.). For the third successive year this iris has been very outstanding among the newer introductions. It has been grown in different sections of the country and compared with the newer and older yellow blends, and is still referred to as being in a class of its own from a color standpoint. Fine color and form; good branching and height and a most prolific bloomer; a glorious iris.

Mary Lee Donahue (Gage). (W. R. Dykes x Primrose). In color it belongs to the deep yellow Pluie D'Or class. It is without markings or blemish and has a brilliant orange beard. The flower is of fine form. Is compared in size with W. R. Dykes and Pluie D'Or, it is not quite as large as W. R. Dykes but is much larger than Pluie D'Or. Stalk well branched; height 30 inches on a first year

plant in an unfavorable garden location. The most outstanding golden yellow iris that has bloomed in New England.

Monomoy (McKee)—36". A Dominion of the Blue Velvet—Royal Beauty series, distinguished by its depth of color in both standards and falls. A very dark rich blue with brilliant blue beard.

Norma Gage (Gage). A lovely medium sized pink and white intermediate that is quite distinct; good substance and a prolific bloomer.

Opal Dawn (Sturt.). A stiff flower with spreading falls, the color glowing amber and apricot of an usual carrying quality, of pale orange—most effective.

Polar King (Donahue). This lived up to its former reputation as to being very distinct from other large whites in purity of color and fine form, and its fall blooming qualities add much of value as an outstanding introduction. Mr. Donahue also has another series of fine whites, Colonial White, Polar Club and White Jade, which showed up very well in his garden this year.

Springtime (Sturt.). A clear lilac pink—a promising competitor for Pink Satin which in form is certainly most lacking.

QUESTIONNAIRE AS TO 25 DEPENDABLES AND 5 NOVELTIES

Eastern: 41 replies were received—23 from members of the American Iris Society and 18 from non-members.

Under the heading "Twenty-five Favorites," 323 varieties were named.

The names of the varieties receiving five (5) or more votes are listed below:

Votes

- 22 Princess Beatrice
- 20 Dolly Madison
- 17 Ballerine, Souv. de Mme. Gaudichau
- 16 Coronation, Dauntless, Midgard
- 15 Los Angeles, Morning Splendor
- 14 Frieda Mohr, Pluie d'Or, Sensation
- 12 Mary Barnett
- 11 Indian Chief, Mrs. Valerie West, Mildred Presby, Queen Caterina
- 10 Asia, Gold Imperial, Sir Michael
- 9 Ambassadeur, Persia, Susan Bliss
- 8 Beau Sabreur, Cinnabar, Corrida, Dream, Rameses, San Francisco, Yellow Moon
- 7 Germaine Perthuis, Lent A. Williamson, Opaline, Primrose, Romola, Santa Barbara, Seminole, Snow White, Wambliska

- 6 Alcazar, California Blue, Desert Gold, Pink Satin, Souv. de Loetitia Michaud, Tropic Seas, Van Cleve.
- 5 Allure, Ambrosia, Aphrodite, Blue Velvet, Bruno, Mary Geddes, Purissima, Rheingauperle, Sweet Lavender, True Charm

Under the heading "Five Novelties" 84 varieties were named. The names of the varieties receiving 3 or more votes are listed below:

Votes

- 10 Easter Morn, Mary Geddes, Royal Beauty
- 9 Pink Satin, Rameses
- 7 Desert Gold
- 5 Dauntless, Depute Nomblot, Ethel Peckham
- 4 Los Angeles
- 3 Pink Jadu, Pluie d'Or, Red Dominion

(One wonders what a novelty is.—Ed.)

John E. Hill, Compiler

VARIETAL NOTES

Dwarfs.—Now for the varieties I had in mind for this discussion. Florida (G & K), which I recently discovered in the Black List, is really one of the best of the yellow dwarfs with possibly the largest flowers in this color. Too, it is of fine form, growing to eight inches, with two or three blooms per stalk.

The interesting and pretty Korolkowi hybrids, all dwarf, by Williamson, of which I seem to have the only segregated stocks, are worth-while additions to the dwarf section. Baby Blue is of the color approaching a bright ultramarine blue, with a few flecks of violet showing, is of nice form, several to the stalk, and free in bloom. Fallen Leaf in its coloring is similar to a newly fallen maple leaf in autumn, a blend forming a rich brown effect. Salerosa is rich deep violet purple in effect. All these have crinkled standards, are small and daintily formed and poised on 6 to 8 inch stems produced very freely. I find they do well in dry situations, but better in half shade and even better in damp situations in half shade, but the soil not flooded with water. There are about five others, not yet described.

Lobelia (Millet) is a very strong-growing dwarf, rapid of increase, and free in bloom. It has done well in a dry situation against a brick wall of southern exposure. This is rich violet blue

of good form. Another of Millet's, named Dixmunde, is somewhat similar, but nearer a bicolor, lower in growth and somewhat earlier. Mistral (Millet) is reddish violet purple, individually very nice, but such a poor growing and blooming one that I expect to lose it.

One of the best dwarfs is a relatively old-timer, namely Standard (Perry), a rich reddish purple in effect; of 6 inches. Petite Amie (Millet), though free in bloom and of good form, does not appeal very strongly to me as its color seems a bit too muddy to be a real good cream. It seeds well but its pollen seems ineffective.

About the best of the dwarf yellows of depth is Nugget (Morrison). It is pure in color and of fine form. As good as Orange Queen is, I like Nugget better.

Curiosity (Perry) has a poor name for a real good dwarf, a sulphur yellow with some flecking of purple. Blue Beard (Perry) is in effect a luminous light blue with flecks of purple and green in the falls and makes a very pretty clump—neither of these like extremely dry conditions. The color class in Check List is W3, which should be B3L.

Atroviolacea is the earliest to bloom in rich velvety red purple, very low in growth, extremely pretty, an indispensable. Bride (Caparne) is one of the larger-flowered whites, on six-inch stems, very early and also very fragrant. Schneekuppe (G & K) is in my estimation the best of the really white ones, also the largest, within my ken.

Coerulea is very lovely, a low growing pale blue. Cyanea (G & K) is very fragrant, a rich crimson purple with white throat beautifully veined—one of the largest and of perfect form, with nicely flaring falls. Eclipse (Caparne)—this is large but on a short stem, a rich red purple self with ruffled standards, very free-flowering. Deserves a better rating, as do most of the dwarfs which undoubtedly have had their ratings influenced downward by the experts who can see only the tall exhibition varieties. This same difficulty of rating small-flowered Gladiolus in an equitable manner is met with in the Gladiolus field. There ought to be a law to muzzle such experts until they learned how to rate flowers without the personal equation influencing their decisions.

Mongul (Millet) though a large violet bicolor is of no particular distinctiveness, though of good quality. On the other hand, Marocain (Millet) is of the very best and darkest, growing to ten inches, a rich dark red purple. Orange Queen (Barr), an old one,

is, however, a standard yellow dwarf of high quality, a uniform shade of clear yellow. Socrates, up to 10 inches, is the richest of all in color, wine red, very handsome. Matuli is a duplicate or nearly so but blooming with the Tall Bearded section.

Statellae, up to 14 inches, very fragrant, a lovely creamy white, is about the best of the creams, but not so free in bloom as Petite Amie. Of Albatre (Millet) my notes only say a nice creamy white. Armee D'Orient (Millet) is a welcome addition for bringing in a new type of coloring, with standards of lemon yellow and falls yellow edged pale violet. It is not, unfortunately, a free grower with me.

Bluestone (Perry) is a favorite though similar to Standard in color. It grows taller and seems to have better form, but lacks in keeping qualities. Rather contradictory, but one of the old loves. Commandant Driant (Millet) is a squalens type in dwarfs, very attractive new coloring in this class, very sweetly scented. It makes an attractive clump with standards of pale buff shaded violet and falls of blackish purple edged with buff. Citrea (G & K) in lemon yellow of self effect and orange beard and creamy Eburnea (G & K) are good.

Stewart (Caparne) is another of the fine yellows, a pure yellow self with occasional brown marks on the falls, free flowering. Verdun (Millet) is a smoky reddish bicolor of interest for its color and freedom of bloom. Zullichau (Millet) is effective as a low growing mass, a red bicolor that I like real well.

Of Intermediate Height.—Now that our Society has adopted a clearer cut classification of the types of bearded Iris, based on heights and not blooming season, but also indicating season of bloom as early, midseason late and very late or fall blooming, with the letters E, M, F or FF, many fine little low-growing things ordinarily classed with the tall bearded section where they had little chance to survive, should now find a place in the sun. I call to mind particularly that one named Hector, one of the brightest of low-growing small-flowered yellow bicolors now almost forgotten. It is of fine form with rich very deep yellow standards, and rich velvety gold edged brown red falls. As a dwarf bearded (DBF) it should be rated near 90. Maori King would also fall in this class, but Hector is better in that though just as free in bloom it does not have a tendency to bloom itself out of the garden.

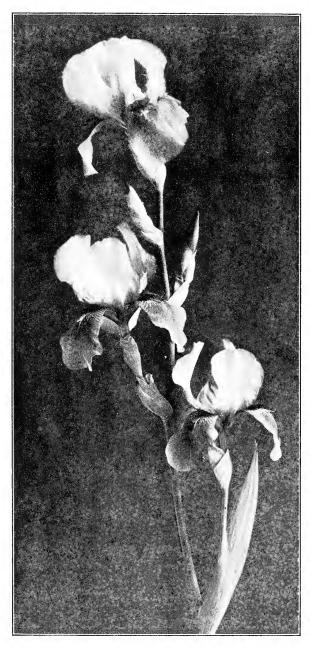
The new ones from G & K, Pfauenfeder and Fylla naturally also go into the new DBF class.

Shifting my remarks to the intermediate section, which in future will include all of a height between 18 and 28 inches, with notation of blooming season, I like Yellow Hammer (Dykes) rather well as it comes just ahead of Soledad, and though it lacks the quality of the latter, it does perform for one much better than the older intermediates in this color range. Queen Flavia (Caparne) at times is fine too but more often than not a bad disappointment—a light yellow almost a creamy yellow, that lacks resistance to heat. Alphonse (Caparne) usually classed with the intermediates partakes more of the dwarfs in habit of growth and height. I do not believe it is necessary in view of such good things as Standard, Dixmude and others—its bloom is small, and though later has the same effect as Dixmude.

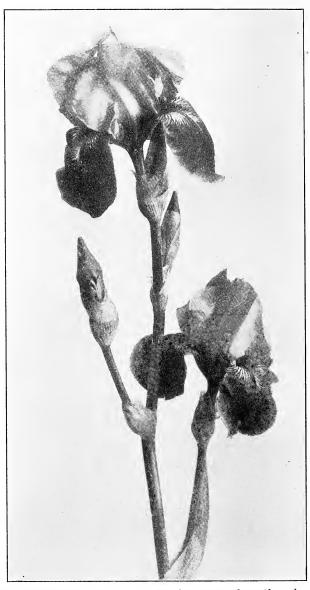
Anne Bullen makes a rich low blue effect in the garden. I would class it a midseason intermediate by the new classification. Following the drought it seemed better than ever. Mercedes (Verdier) is just one of those odd yet attractive small speckled plicatas. So far they seem only desirable for adding variety to one's collection, for their coloring may only be appreciated by close inspection. Zouave (Vilmorin) on the other hand is sufficiently large for a speckled plicata, of fine flaring form and low growth making for an effective pale colored clump for a near-by picture in the garden. This will be an intermediate of IBF classification. All its beauties are visible to the eye without the use of a stepladder. Yes this is a slam at those tall things with flaring falls often referred to as of ideal form, which they are not, for they can only be seen for enjoyment from a second floor window or a mound of some sort.

TB.—Moon Maiden (Sheets) is the coming light blue blend. It has good size, fine form, height and branching and great freedom of bloom and growth to place it in the front rank of pale or light blue blends. I saw it 40 plus inches tall.

Argentina, after five years' normal growth but no bloom, finally bloomed in 1931. This and other Mohr varieties given greater freedom from encroachment by other plants, yet Argentina only bloomed once in six years and then freely, following the dry year of 1930, which would almost indicate that it needs a good drying out each season to bloom well the next. Just the opposite seems to be the case with Esplendido, Hidalgo, Conquistador and Coronado, for these bloomed each season that saw plenty of rainfall, with bloom entirely absent when rainfall was nil.



Vesper Gold (Wmsn. 1926) H. M., A. I. S. The cupped revolute standards and flaring falls add airy grace to a clump and the color will light up a sombre corner.



Kublai Khan (Wmsn. 1931). A Cinnabar cross, the rather close branched stalk adequate for the smoothly rounded blooms.

Shekinah (Sturt.) I expect will long remain a favorite light yellow with me. A most reliable flowering sort. Place Chasseur, however, just ahead of it. This is most effective as a yellow garden clump. It certainly stands up finely in our hot suns. I like both of these so well that they are being used with Caroline E. Stringer in furtherance of my ideas concerning the production of the long sought yellow pink. As a choice between Caroline E. Stringer and Trostringer, I believe I prefer the former, mainly because of its lacy throat. The slight difference in size in favor of the latter and probably in height are not sufficient to claim my love for it in preference to Caroline E. Stringer.—Chas. E. F. Gersdorff.

Cameliard was beautiful, 46 inch stalk, I think it one of our best.—Sam Graham, Ga.

Cecil Minturn is not a highly rated iris but, with me, it is a mass of bloom every spring. Surely such an iris is better for the amateur than some of the very highly rated novelties which will just grow (lucky if they do that) and which hardly ever produce a bloom.

Geo. J. Tribolet is one of the most satisfactory—vigorous, an excellent bloomer, and a very pretty blossom—a reliability that many of the 90 plus irises that grow do not have.—L. F. Valentine, Kansas.

THE FAMILY TREE

Pod-parent x Seed Parent

Here as elsewhere we lack contributions and yet it is from the beginner who crosses two named varieties and reports that we gain knowledge rather than from the confirmed addict who can give a long pedigree confused by the inclusion of many an unobtainable seedling. For years seedlings of Dominion, of Alcazar, Oriflamme, Sherbert, and trojana held attention. Do none of the novelties prove potent parents?—Ed.

Fall-blooming in 1926: In 1912 M. Jean Siret, gardener to the Count de Chavagnac of Varennes-sur-Allier, obtained seed of a Pumila that flowered twice during the year. This was Souvenir de Lieutenant Xavier de Chavagnac, a bronzed violet. Later came the canary yellow named Jean Siret and both were awarded C.M. in Paris on Nov. 25, 1926. They were later variously listed by others as Biflora, Remontant Sirio and Aureoline.—From a letter from Charles Andree.

Lent A. Williamson bred to troyana produced Morning Splendor and Julia Marlowe and in succeeding generations figures in such things as Coppersmith, L'Aiglon, and Sequoiah—and the families from which these were selected. These are as much or more like Dominion than many of the things known to trace directly to Dominion. Why not go back and give the credit to Amas or to the fortunate results of bringing Amas and troyana into the same family?—J. Marion Shull.

Kochi x Magnifica, x Blue Boy and x unknown have all given a few seeds that germinated though the seedlings were lost. Soledad x Kochi also. Frequently well developed pods are empty of seed.

Tenebrae has repeatedly failed to set seed; yet the pollen is potent.

Pinks: Georgia and Cecil Minturn x Caroline E. Stringer both gave a numerous progeny, not tall but free, with many a lilac pink.

Reciprocal Crosses that produce seed are as follows: Mrs. Cuthbertson and Chasseur, Dusk and Mme. Cheri, Chasseur and Caroline E. Stringer, Bruno and Dusk, Chasseur and Anne Bullen, Mildred Presby and Souv. de Mme. Gaudichau. The following have proved potent but not always in reciprocal crosses: Alcazar, Anne Bullen, Aphrodite, Arlington, Aurelle, Caroline E. Stringer, Chasseur, Col. Candelot, Dusk, Florida, Gargantue, Geo. J. Tribolet, Horizon, Imperator, Impressario, Jacqueline Guillot, Margery, Mildred Presby, Mary Gibson, Mme. Cheri, Mrs. Cuthbertson, Odaraloc, Pioneer, Ramona, Shekinah, Silverado, Soledad, Souv. de Mme. Gaudichau, Steepway.—Chas. E. F. Gersdorff.

The Virtues of Mixed Pollen

Mixed pollen from selected varieties, as used by Mr. Williamson and reported by Mrs. Peckham in Bulletin 48, is of course better than mixed pollen delivered by a bumblebee unselected, but lest Mrs. Peckham's further comment should lead an army of new "breeders" to the indiscriminate practice of mixing pollen it should be made clear to the tyro that only one pollen grain can combine with one egg cell for the production of a seed, and it may easily happen when a bee deposits pollen on a stigma that no two of the pollen grains so deposited may have come from the same parent. While the seeds will all have a common denominator derived from the mother plant, that which is derived from the other side of the

house may be utterly diverse. At best the offspring can be designated only as half-sisters. Then why should amoenas, or anything else for that matter, result from the use of "mixed pollen?" And why should "mixed pollen" have any different status in a statement of parentage than "So-and-so x ————?" There can be no actual difference, for the male parent is simply unknown and there is only the assurance that he came from some sort of aristocracy rather than the riffraff. No plant or animal has yet been able to claim more than two parents.

The statement runs to the effect that the pollen was not taken promiscuously but from several specially chosen varieties selected for certain desirable qualities they possessed. Now, had the chosen row of the seed bearing variety been divided into several sections and each section pollenized by pure pollen from just one of the selected pollen parents, the seedlings from the row would have shown precisely the same degree of variation—with just this difference, that then we should have known which of the chosen pollen parents had contributed the desirable qualities that came out in the offspring. There would have been just as many amoenas, but we should have known what parental combination was responsible for The labor of pollenizing and recording would have been only slightly greater and in return we should not only have possessed the full complement of fine varieties that resulted, but should have benefited by a contribution to our knowledge of parental values in given combinations. This knowledge would have been clear gain at relatively small cost. As it is we have only the new varieties themselves.—J. Marion Shull.

LANDSCAPE PICTURES WITH IRIS (Cont.)

Alfred C. Kinsey, Indiana University

Seasonal Succession

Main Iris Season. Make color and height combinations as suggested below. Supplement the Iris colors and forms with Pinks (Dianthus spp.), Aquilegias, Heuchera, Delphinium, rock plants of many kinds, Peonies, and especially the early flowering Hemerocallis varieties. The Irises are set off to better advantage by contrast with the forms in these other things. These other plants may form solid clumps properly combined with the Iris colors and heights; or the Pinks and Aquilegias may fill every nook and cor-

ner where Iris is not planted. Do not segregate the Iris into one portion of the garden, making it depend on its really limited list of colors alone. The lighter colored poppies combine well with Iris, but the brilliant red poppies, useful as accents standing out from shrubbery borders, do not combine with anything but white Irises. Flowering shrubs provide backgrounds and additional color for the picture.

After-Iris Bloom. It is easiest to close the garden, or part of it, after Iris is gone; but there are many months ahead when the garden should be contributing. It is not our province to outline the summer and fall gardens. Enough to say that it seems a sad mistake to leave the garden bare or, at best, a green garden for the sake of a few weeks of Irises. In the re-made spring bulb beds, in backgrounds back of the Iris plantings, in an occasional space in the Iris beds themselves, room should be reserved for the plants that will give color in the summer and fall. Hollyhocks, Japanese Iris (where they will grow), Lilies, summer varieties of Hemerocallis, Monarda, Helenium, Malva, and fall asters are among the proved perennials for this climate. Gladioli and Petunias are among the annuals which give us mass effects with the minimum work.

Elements of Height

Tall Varieties. Tall varieties may be used as one or a few stalks supported by backgrounds of taller shrubbery. Thus they provide points of accent which, like other climaxes, must be used sparingly. The present emphasis on tall stems ignores their limited use in a landscape. In most cases they must be stepped down to the front of the beds by means of shorter varieties.

Color Combinations

Whites. Absolutely indispensable for any landscape, setting off the deeper colors, providing the links for connecting pinks, blues, reds or almost any other Iris colors. Even if high-rating whites are still rarities, and even if most visitors to the garden are not conscious of liking the whites in it, we cannot afford to be without such whites as are available at reasonable prices. Lacking good whites in the dwarfs, the landscape at that season must be relieved by the whites of Arabis spp., Phlox subulata white, white narcissi, and tulips, Cerastium spp., and the white-flowered shrubs which bloom as early as this. In the next stage of the garden succession

we desperately need good whites, Florentina alba remaining the best if not a really satisfactory intermediate. With the tall bearded Iris use such varieties as Alabaster, Arlette, Chartier, La Neige, Milky Way, Micheline Charraire, Taj Mahal, Wambliska, White and Gold, White Knight, White Queen. Use the white Siberians, Snow Queen, White Dove, etc. Use white-flowered shrubs such as *Philadelpus vars.*, *Spiraea*, white lilacs.

Light and Medium Yellows. As important or even more important than the whites as bases against which to exhibit darker varieties, and as connecting links that will combine almost any of the Iris colors. The prevailing fault among Iris plantings is the lack of vellows and whites. No garden can afford to concentrate on the limited number of first-class yellows available; it very much needs both the lighter and the medium-toned yellows, the intermediate heights as well as the tall varieties, and may well use a long list of the following quite acceptable yellows: Aliquippa, Coronation, Chasseur, Flavescens, Golden Glory, Gold Standard, Gold Imperial, Flambeau, Flutterby, Desert Gold, Primavera, Nymph, Sunbeam, Shekinah, Yellow Moon, Primrose, Pluie d'Or, W. R. Dykes. The early-flowering Hemerocallis species are indispensable adjuncts in this yellow ground. Try Middendorfi, Apricot, Gold Dust, Flava, Queen of May, Minor, Dumortieri, Sovereign, Florham, Aureole.

Deep Yellows. Not as useful as the lighter yellows for the bases of the garden picture. Constituting points of accent which must be used sparingly, although possible in combination with anything except the reds and pinks. Here belong Nebraska, Prairie Gold, Sherwin Wright.

Yellow Variegatas. The sore thumbs of any landscape. If our breeders had more feeling for color perhaps they would not make good breeders, but they would not have given us so many variegatas. The deeper the yellow in the standards, the sharper the contrast with the falls, and the more impossible to place where they will not blatantly take the whole show. Varieties with light yellow standards and duller falls, as in Cameliard, Citronella, Claude Aureau, are less difficult to place. Can be used with clear yellows (which must be as deep as the standards of the variegatas), or with white selfs. Always best if absolutely alone in a shrubbery nook, preferably in some shade where they cannot stand out too brightly.

Yellow Blends with Light Colors. The yellow blends are fascinating as individual flowers, and are among the most useful of all Irises, combining with almost any light color or shade, not so good in combination with dark colors. Few Irises, of any color, lack a yellow beard and that is sufficient to make them carry well into the yellow of such blends as Afterglow, Endymion, Vesper Gold. Elsinore and Valencia have some of these qualities but are not combinable with all other colors.

Light Blue Blends with Blue or Pink. Such blends as Dalmarius and Palemon combine well with blues of almost any shade and with the lighter pinks.

Lavender Blends. Dolly Madison, Persia, Quaker Lady are superb as separate clumps, but not well combined with many Iris colors. Good, however, with whites or very light yellows.

Rose Blends with Yellow Blends. Such rose blends as Jane Williamson, Abenda, Mme. Cheri, Mary Gibson, and Steepway do not have enough color to be used as the pinks in combination effects (see below), but they make wonderfully soft combinations with such yellow blends as Afterglow, Endymion and Vesper Gold.

Brown-Olive Blends. Fascinating in themselves, very difficult to harmonize with anything else in the garden. Tuscany Gold and Amerind have so far fitted nowhere in our garden except against the deep red of a red barberry background. There they are glorious.

Blue Plicatas. Largely worthless for landscape effects because the color is so scant that the white becomes a dirty gray at a distance of only a few feet. The ratings given True Charm are evidence that landscape values are rarely considered. Some of the nearly colorless plicatas may be substituted for white in any of the combinations given in this list. Deeply colored plicatas like Damozel, Pocahontas, Princess Osra, San Francisco, are to be treated as light or medium blues in landscape.

Light Pink with Light Blue. A subtle combination, pleasing enough to repeat many times in a large garden. Use such pinks as Airy Dream, Allure, Opaline, Caroline E. Stringer, Trostringer, Wild Rose, Rheingauperle, Midgard, Amanecer. Use such blues as Mary Barnett, Celeste, Dorothy Dietz, Yvonne Pelletier, Corrida, Bluet, Princess Beatrice, Ann Page, Ballerine, and any of the light blue Siberians.

Deeper Pink with Blue. Very "Frenchy," irresistibly attractive even if not immediately pleasing to every one. Use the deeper

pinks, such as Her Majesty, Cecil Minturn, Georgia, Margaret Moor. Use any of the blues from the preceding list, preferably such darker varieties as Corrida, Princess Beatrice, Rheintraube, Blue Banner, Sensation, Santa Barbara, Pacific, Ballerine, and any of the blue Siberians.

Deeper Pink with Lilac. A rich combination dependent on carrying the purplish rose of a so-called "pink" Iris into lilac selfs. For pinks use Her Majesty, Reverie, Isoline, Georgia, Folkwang. For lilacs use Lady Byng, Phyllis Bliss or Queen Caterina.

Lavender Pink with Purple. A combination dependent upon using those "pinks" which have the most lavender in them, combining them with the distinctly purple blues. For "pinks" use Dream, Susan Bliss, or Georgia. Use such purples as Souv. de Mme. Gaudichau, Duke of Bedford, Swazi, Germanica major, Amas, Buto, Moa, Tropic Seas, Zulu.

Blue-Purple with White. For sharp contrast, not to be repeated too often. The "amoenas" have this combination already in them, but taller varieties, with protruding falls, varieties like Rhein Nixe, Cantabile, usually carry as whites because the falls are inconspicuous at any distance. Lower "amoenas," like Mary Williamson, show both colors, giving a pleasing speckled or spotted effect in mass. For sharp contrasts use any blue or blue-purple such as Asia, Blue Banner, Rheintraube, Swazi, Souv. de Mme. Gaudichau, Buto, Duke of Bedford, Zulu, Moa. Use pure whites such as Alabaster, Chartier, Milky Way, Purissima, La Neige, Micheline Charraire, Taj Mahal, White Queen, White Knight, Wambliska.

Red or Magenta with White. The so-called red Irises: Seminole, Opera, Morning Splendor, Rosalba, Zamora, Magenta, Ethel Peckham, Mareschal Ney, L'Aiglon, Pioneer, Mrs. Valerie West, Indian Chief, Dauntless; and the magentas: Medrano, Labor, Numa Roumestan; there are, after all, to be placed with considerable caution in any landscape. They are primarily climaxes, points of sharp accent, and must not be used too often. They do not combine well with any yellows except the very lightest (Flavescens, Aliquippa, Gold Standard, Yellow Moon), and are bad with the blues and blue-purples. The brighter varieties are best placed against shrubbery backgrounds, apart from any other colors. They go well with any of the whites, but the contrast with pure white is so sharp that it should not be repeated too often in one garden.

Red or Magenta with Peach or Very Light Pink. An additional use for reds or magentas (see above), and a very pleasing combination may be obtained with such peach plicatas as Mme. Chobaut, King Karl, Jubilee, Lona, Loudoun. Another good combination includes reds or magentas with very light pinks or with pink-striped white or pink plicatas which carry as light pinks: Airy Dream, Opaline, Midgard, Trostringer, Caroline E. Stringer, Allure, Simplicity, Mystic, Wyomissing, Mrs. H. Darwin, and the flowering shrubs, the pink Weigela and the Beauty Bush.

Mixed Clumps, Close Blends. The acme of peaceful color effects, subtle and sufficient for souls more gentle than ours. Beware of combinations of varieties so close that one bloom looks like a faded flower of the next. Seminole and Opera are horrible together. Best use selfs of lighter shades. Try Caroline E. Stringer, Rheingauperle and Her Majesty. Try Pearl Blue, Bluet and Gold Crest. Try pure whites with light plicatas, deeper plicatas, and whites with rose-striped falls.

Mixed Clumps, Contrasting Shades. Pure or (better) crystalline whites (Arlette, Dawn, Moonlight), with shades (not clear colors) or blends of pink and red. Try Arlette with Midgard and Labor. Try Moonlight with light pink shades of poppies. Try Dawn with Quaker Lady and Edouard Michel. Try Micheline Charraire with Aliquippa and Dolly Madison. Try the same whites with shades of blue.

Mixed Clumps, Sharp Contrasts. Interesting, startling, providing some relief from the pure clumps in which most of the varieties of a garden should stand. Use any of the color combinations given above and indicated for sharp contrast. Even varieties of poor quality as individual flowers may be utilized (if better ones of same colors are not available). One clump of ancient standing in our garden even includes Flavescens, Perfection and Red Cloud (awful thing!). Better is the clump of Rheintraube, Milky Way and Medrano.

GARDEN PICTURES—NO. 8

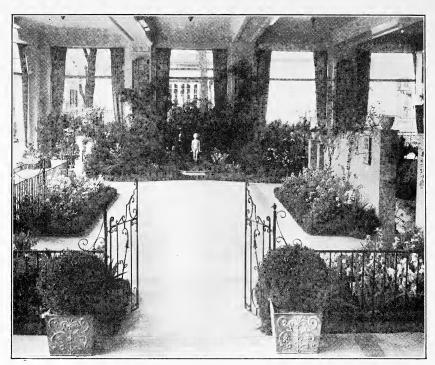
A "Show" Garden.—Edgings

The excellent photograph of a garden at Columbus, Ohio, staged under the auspices of Mrs. Arbuckle, Mr. Seifert and others of the Columbus Iris Society, suggests the possibilities of a real small garden. We may look into it from the living room as in key plan 1; it may lie at one end of the terrace as in 2, fill that awkward side area between house and boundary line and street, or be actually away from the house and perhaps even behind the garage. In this last location evergreens as background and enclosure would be less necessary.

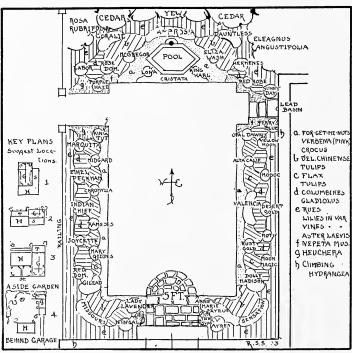
In the enlarged plan colors are arranged to allow for the brick walls of the house which may or may not carry vines, the small-leaved euonymus and the big white *Clematis henryi*, or Fleece Vine (*Polygonum*). As always, we first consider views from entrances and suggest a balance of color masses. Naturally the view out from the house comes first and we try the light tints of Ambrosia against the dark yews and the dark tones of Dauntless, Hermenes, and Red Robe against the grays of cedar and Russian Olive. The many yellows (pale) and browns against the house are echoed across into Marquita and Chromylla among the light blends and the deep reds.

As we look back to the house the blues and warm buffs show well against the bricks and it is only close at hand that we note the perfection of such things as Ningal or K. V. Ayres. I have always liked Ishtar and Sindjkha as foils and these newcomers from Dr. Ayres offer even more opportunity to the clever planners.

The long-spurred columbines should be lovely either with the pinks or the browns but for the most plants for succession are associated with the irises—those with reasonably heavy foliage behind the clumps and lower things to the fore. If this were not an iris collector's garden we should plan the iris clumps in bigger masses, using only Susan Bliss, Snow White, and King Karl with accents of Morning Splendor at the end; only Yellow Moon with a touch or two of bronze at the sides, and only perhaps Afterglow and Souv. de Loetitia Michaud near the door with the palest of mauve poppies such as the delightful little E. A. Bowles.



A Columbus Exhibit.



A Similar Planting for Out-of-Doors. [70]

Edgings. These are always a problem with irises. Culturally they must never be too high in foliage to shade the rhizomes, nor too weak in growth to be conquered by root competition—hence low shallow-rooting sedums may be ideal and rampant annuals too fluffy. For color effect it is only in odd spots and with low irises that edgings enter into the scheme—they are much more useful for succession and for a pleasant foliage texture in contrast with the iris blades. While from a design point of view we must consider first the texture of our foreground—of pavement or grass—and second, the need of balance to either side of step or path or panel.

In dealing with pavements or gravel, the edging plants may be fine-textured and may encroach upon the traveled way in careless charm while with grass the edge must be neat and of coarser texture than the turf to fulfill our requirements.

Except when used as individuals to accent a corner or break the lowness of the edgings we must omit even the dwarfer hemerocallis or funkia, and even the shrubby lavender or hyssop close against the iris clumps. Among annuals really dwarf ageratums, verbenas (in the South I should use the hardy winter-flowering ones freely), Sweet Alyssum or California poppies are all good when they thrive. (That the iris tends to rest immediately after flowering often gives the annual a good start.) Among the perennials there are many to choose among but each tends to thrive only in certain soils, so that I prefer to start with a plant or two and do my own propagating among those that thrive—gradually there will be long ribbons or veronica or viola as my soil and my maintenance coordinate.

Bulbs. I have had no difficulty with early bulbs, particularly scilla siberica, chionodoxa, and Muscari Heavenly Blue, when they are allowed to self-sow. Crocus, galanthus, eranthis, allium moly, the fall flowering sternbergia in the South are more particular as to soil. The bulbous irises are rarely happy enough in location to compete with the rhizomatous.

Ajuga reptans. A bit pale but genevensis vivid blue-purple—excellent.

Alyssum saxatile compactum. Very fair, the type a bit heavy and other species not sufficiently strong growing.

Arabis. Good carpeters next pavement or gravel; require frequent replacing from seed or cuttings. A. procurrens—an interesting green mat and permanent.

Arenaria. The mossy verna erratic in growth, montana occasionally very happy.

Asarum. Wild ginger though a shade lover makes an excellent neat edging for a grass path. The almost evergreen ones (virginicum and europaeum) are nice where the edge is seen in winter.

Bellis perennis. Nice where hardy and adapted to the soil. In the north the English Daisy is rarely worth the trouble in association with irises but the closely related Bellium might be tried.

Brunella. The Self-heal is a bit weedy but again has the texture to look well next grass.

Calamintha. Almost a thyme in effect blooms itself to death almost but self-sows freely.

Campanula. The lowly Bell-flowers are rarely husky enough to stand the competition but I am always trying *C. carpatica* for its summer bloom and I like the Peach-leaved drifting back in among the fulva hybrids—its low foliage is never smothering.

Cerastium. Though fine-textured the gray is good next grass if it be kept in bounds.

Coronilla. Pea-flowered bushlings that are worth collecting and trying if dwarfs.

Corydalis. The early flowering bulbosa loses its foliage but some of the later ones may prove self-sowing and the ferny tufts show up delightfully against the iris.

Crucianella. Frail in appearance but rampant and very light green.

Cytisus. The dwarfer brooms are rare but should prove interesting. They come fairly well from seed and dislike transplanting.

Dianthus. Any of the so-called Everblooming Pinks look well and even Sweet William is not too high in foliage. The huskies endure the competition with irises and the alpines will not. The grassy Clove pinks are much lovelier in association with stones or gravel than with grass.

Dicentras. When dwarfed are interesting variants to corydalis. The common eximia is apt to swamp a newly planted iris but may be held in bounds near established irises.

Epimedium. An incomparable neat edging for a grass path. The closely related Vancouveria is more delicate and even lovelier.

Erodium. Little-known geranium-like sub-shrubs that might prove happy in your garden.

Erysimum. Also rare and usually transitory but effective.

Fragaria. Even the usual strawberry makes a lovely foot-wide border of lustrous green.

Gypsophila. The dwarfs are excellent pink-like things.

Heuchera and Geum with their low tufts of foliage are lovely along a wide grass path.

Hypericum. Again the dwarfs are excellent—repens the most available.

Iberis. Any of them, but the texture is more effective with paving than with grass.

Lamium. Mint-like in white or magenta flowered mats; very easy and effective.

Lychnis viscaria. Most useful—its vivid common form grand with the dark blue of Parc de Neuilly or the Speedwells.

Mazus. Almost a crevice plant, its green starred with lavender.

Myosotis. By all means and especially when it self-sows.

Nepeta hederacea. Extremely weedy but better than nothing.

Phlox. Amoena, divaricata, repens, reptans, subulata—all the dwarfs are excellent and will never crowd too heavily an established

iris clump.

Polemonium reptans. An easy carpet that appreciates frequent replanting as does *Phlox divaricata*.

Primula. They look well but prefer more shade and moisture.

Ranunculus repens. The double form is quite nice—the foliage a good dark green mat.

Saponaria. The Soapwort—a dwarf trailer.

Saxifraga. The heavy leaved crassifolia and cordifolia are excellent in contrast with iris foliage; others usually too miffy in growth.

Stellaria. Cerastium-like and effective only when in bloom.

Sedums in endless variety—the carpeters better adapted for our purpose than the tufted growths; spectabile is too big, ternatum one of the few that likes some shade.

Sempervivums. The House-leek mats are charming cuddling about the sunny base of an iris and particularly if in a raised bed.

Stachys. A grand white woolly mat—its bloom no addition.

Thymus. All thymes are excellent and particularly the forms of serpyllum.

Tunica. Handy but not thrilling.

Veronica. Even in the 18-inch spikes of spicata we find supervalues in this family. Try all the dwarfs and increase them into long ribbons of purple-blue.

Violas like primroses prefer moisture to the well-drained site suitable for bearded irises. They are equally lovely as edgings.

Only the lower growing of the true violets such as odorata hold their own against irises.

In such a list we omit many a gem from the rock-garden which may in your case prove a success. We omit shrubby herbs that may be used only sparsely for the sake of the irises. We omit dwarf irises—to avoid monotony of foliage and we omit shade and moisture lovers. With beardless irises and special culture, astilbes, hemerocallis, hosta, primulas, violas, and even native ferns and bogplants are all happy and effective and such irises endure almost a smother of growth.

Among the bearded iris we prefer low mats of growth, we value foliage above bloom and we tend to select such plants as are easy of propagation, husky drought endurers and such as have proved themselves in our own experience as too strong for the rock-garden. The iris when in full growth is surface rooting—a close association is not as harmful as close cultivation and the effect is decidedly enhanced.

THE NATURAL GARDENS OF NORTH CAROLINA, by Prof. B. W. Wells. (Published under Garden Club auspices.) Its value is not in the mention of the native irises cristata, verna, fulva, tripetala, and prismatica, but in the chapters descriptive of the many plant communities from salt marsh to mountain height. One could wish that each state might boast such an ecological study and that other federations might further their publication.

LAURA'S GARDEN, by the Count de Comminges (Macmillan, 1932), is as delightful reading as the old Studies in Gardening by E. Clutton-Brock. In diary form one may turn at will from "the catalpa, like an obese monarch," to the "golden maple, the twigs yellow, the aphides black—a Japanese harmony," or to "Iris florentina... One day at Geminiano an urchin contemptuously threw a handful of the rhizomes at my feet. He threw them at the foreigner as he might have thrown stones."



GARDEN AT SOUTH WHITNEY, IND.

Mrs. Richer, the raiser of Gaynelle and other irises, writes "The Sundial is at the intersection of two paths bordered with Clove and Maiden pinks, pyrethrum, geum, and troillius in among the irises in the four L-shaped beds. In the corners are lilacs, bocconia, senna, hibiscus and althea as a foil or background." In the picture one rather wishes for greater definition of the path and more width whereas the building up from low to high is a vast improvement over mere irises. The low veronicas, Lychnis viscaria fl. pl. Saponaria and the later flowering sedums, Tunica, Nepeta Mussini, or even the foliage of early phloxes and epimediums are all pleasant against the iris fans.

HEMEROCALLIS FOR THE IRIS GARDEN

R. S. STURTEVANT, M. L. A.

Though I will confess that I rather prefer the foliage of daylilies with the beardless irises I find them so adapted to the welldrained beds of the bearded that I use them freely both in combination and for succession. In both, certain varieties show a winter growth of foliage, in both we frequently find storage capacity in the roots and consequent resistance to drought. Though the bearded irises have rhizomes, the Junos have fleshy roots much like those of Hemerocallis and would it or would it not be fun to hybridize them and get blue day-lilies and orange irises?

When planted with Apogons I introduce astilbes and big-leaved Plantain lilies for textural relief while with the Pogons occasional peonies, broad edgings of Epimedium, and spiry cimicifugas serve a similar purpose. Except for the astilbes, which seem to need frequent replanting owing to their shallow root systems, they are all vigorous fighters and well adapted for happy companionship.

At the height of the iris season we can, perhaps, select older Hemerocallis, the lemon yellow flava or little Winsome massed with Dalmatica or Snow White, the more orange Apricot, its soft hues lovely with Shekinah, the vivid orange of Middendorfi with Sensation or Bonnie Blue and the almost red-orange of Iris Perry with Black Wings. This last and the yellow orange Queen Mary lead us through the season of spurias and Japanese well on into the summer as many of the late Hemerocallis are widely branched and carry over a long period of bloom.

In the old days we knew few varieties, the small flowered *Thunbergi*, big *luteola*, and *citrina* which in their light yellow were always effective with larkspurs but now there is such a wealth to choose from that I must list them by color, beginning with the yellowest, leading on to the orange and the tawny Fulva hybrids. (Such a duplication of names as there is between iris and hemerocallis.)

Pale to lemon yellow: Baroni, Calypso—a beauty, *citrina*, Hyperion, Mrs. A. H. Austin, *Sprengeri*, *Thunbergi*—all about the coloring of *H. flava*.

Pinard to Empire yellow (Coronation color): the pale ochroleuca, Golden Bell, Golden Standard, J. A. Crawford, narcerensis, Mrs. W. H. Wyman, Mulleri, Queen of May—a favorite, plicata—a slender thing, the fluted Shirley, Sudan, the flushed Waubun, and the deeper lemon chrome of Royal or Golden West.

Apricot to Light Cadmium Yellow: Anna Betscher, Amaryllis, Florham, lovely Gold Imperial or Lady F. Hesketh, *luteola major*, Sir Michael Foster, The Gem. Hon. J. R. Mann, Mrs. J. R. Mann a bit darker; Giantess, and the long enduring Queen Mary are darker toned.

Orange Yellow (deep chrome to cadmium): Harvest Moon, D. D. Wyman with its fulvous flush, Bay State, Gloriana, and Vesta. I like the color so much that it is hard to choose.

Capucine to orange: Golden Dream, Goldini, the even redder Iris Perry and perhaps the two finest of all Cressida with its faint halo and E. A. Bowles which verges on salmon. They actually approach the flame scarlet and orange of the Butterfly weed (Asclepias).

Fulva hybrids: In Europa, the enormous maculata, and in the double Kwanso the dragon's blood red hardly reveals the yellow ground while in others which I list from light to dark the effect is a blended self, to use iris terminology, though often the yellow ground stars out along the midrib of the petals—Rose Queen Margaret Perry, Byng of Vimy, Bardelay, Sunset—a carnelian tone, Imperator, and the garnet brown Cissie Guiseppe—a small flower of interest only to the hybridizer I suspect. In Dawn, Sunkist, and Viscountess Byng three petals are markedly darker than the intervening sepals—almost a bicolor effect in light tones. Just how we will use these odd shades is as perplexing as deciding how to use some of the blended irises like Katherine V. Ayres and Ningal which, incidentally, would be lovely if they only bloomed at this season.

By late August Cissie Guiseppe, Rose Queen, Sunkist, Viscountess Byng, and Margaret Perry are still to be found and two new very light yellows, the tall Ophir and the lovely Sunny West join with the brilliant light cadmium of Gypsy in carrying on into September. Unnamed seedlings from Betscher and others carry us into deeper tones.

A CALENDAR FOR NEBRASKA

H. T. Judson

Both 1924 and 1929 brought frosts in May, on the 21st and 16th, respectively, and were exceptionally cool springs, the iris jumping into bloom in the succeeding hot spell. It is amusing to note how many of the old varieties were discarded and how the new ones often followed suit after one blooming.

I include records also from G. Seaberg and H. M. McIntosh for 1929 and must confess to no dates taken in 1926. The season is May.

	1924	1925	1927	1928	1929
Afterglow				23	20
Ak-sar-ben	28	13	16	20	
Aleazar	20				22
Amas	17	12	19		
Ambassadeur	30		23	28	30
Anna Farr	26				
Asia			23	29	
Athene					24
Autumn King		10	16	18	18
Baldwin					26
Ballerine					24
Blue Boy					26
Benbow					22
Blue Jay					23
Buto					22
Caroline E. Stringer			22	20	
Cardinal				23	26
Caterina	25		24		
Cecil Minturn		12	23		24
Celeste	22	11			26
Doxa					13
Dr. Berenice					26
Dream			24	23	27
Eldorado			19	20	22
Edouard Michel		19	23	20	25
Flavescens	27	11			27
Florentina	18	1			12
Fairy					26
Gaiete				26	26

	1924	1925	1927	1928	1929
Gaviota				26	25
Georgia			13	13	17
Her Majesty	23	19	22	23	24
Ingeborg	10				
Iris King	25	15	24		25
Isoline	23	15	20	26	26
Jubilee				26	23
Kalos			18	16	27
King Karl					20
Kochi	17	30	9	18	11
King Tut					27
Lady Foster			17	17	
Lent A. Williamson			17	30	21
Lona			24		
Magnifica					24
Ma Mie			19	23	
Mary Garden			23		
Medrano					23
Merlin	24	12	18		
Midgard					24
Midwest	26	19	21	27	25
Mildred Presby			24	30	29
Monsignor		18	23		27
Mother of Pearl			26	25	24
Mme. Chereau	23	12			
Nebraska					30
Nibelungen	26	27			00
Nokomis	25	19	23		
Odoratissima	30	14	18	18	22
Oriflamme	26		10	10	
Othello	<i>2</i> O				26
Pallida Dalmatica	20	15	17	19	23
Paracina and Parvar	20	10	11	19	28
Perfection	14	28	16	23	17
Prairie Gold	14	20	19	$\frac{23}{24}$	24
Princess Victoria Louise	28	15	$\frac{19}{21}$	24 23	24 27
Prosper Laugier	40	10	23	23 18	23
Quaker Lady			40	10	
- ·					$\begin{array}{c} 27 \\ 21 \end{array}$
Queen of May	22	26	16	1.4	
	22	20	16	14	15
Red Wing	0.0	1.5	0.1	0.0	28
Rhein Nixe	26 c	15	21	26	22
Richard IIJune	6	10	1	4.0	0.0
Seminole		13	20	18	23

	1924	1925	1927	1928	1929
Sherwin Wright					22
Sindjkha					26
Souv. de Mme. Gaudichau			23	22	21
Tamerlane	23	17	15		17
True Charm				18	27
Valkyrie				21	
White Knight		15		20	27
White Queen				18	24
Zua					11
Zwannenberg			13	13	17

It is to be noted that the season is short, Florentina beginning early with Kochi. Ingeborg and Doxa rarely well-started by May 11–18, while Richard II is the only variety to open its first flowers after June 1st. Queen of May, Zwannenberg, Georgia, Amas, Autumn King, seem characteristic of the mid-season such as it is and Ambassadeur, Anna Farr, and perhaps Mildred Presby might be considered very late, which rather checks with my experience.—Ed.

THE GARDENER'S FRIEND AND OTHER FACTS, by G. S. Chappell and Ridgeley Hunt (Stokes, 1931). A blend of fact and humor respectfully dedicated to "Old Man Adam who started all this garden business," but was not familiar with the garden club. Chronological chapters lead us on to December, when the plump lady lecturer on "flowers for the table" recommends "For the bath, nothing is lovelier than a single white lily on its slender stalk. Standing in one's bath one seems to see one's self reflected, as it were, in the grace and purity of the flower."

It seems to be the fashion to sweeten the instructive book with humor and both Beverley Nichols and Karel Kapek have made their contributions and each will appeal to but a certain group of readers, whereas The Gardener's Bed Book, of which we may expect a new addition (not edition) will offer at least a palatable tid-bit to each of us.

SCIENCE SERIES NO. 11* STEM ELONGATION STUDIES†

ADOLPH E. WALLER AND ROBERT H. McCORMICK

I. Tall Bearded Iris

It has been a matter of common observation that the growth of the flower stalk in the tall bearded irises takes place very rapidly. From less than an inch in length about May 1st, in Columbus, most varieties add two feet to the length of the flower stalk by May 31st. In some varieties, under favorable environmental conditions, more than two inches' increase in length in a twenty-four hour period has been noted. A flower stalk dissected out of the fan of leaves, May 1st, consists of a very short collection of internodes, rather large anthers, longer than the sepals and petals, which in most varieties examined were found at this stage to be less than $\frac{1}{4}$ of an inch in length. The cell divisions which result in tissue-building and such a great increase in length must occur very rapidly. our knowledge these changes have never been followed through with accurate measurements. The speed with which the ultimate length is attained depends in part on the inherent capacity of the plant and in part on the environmental factors affecting the internal ability of the plant. The purpose of this study is to observe and record the actual daily growth and to unravel as far as possible the complex environmental factors affecting their growth.

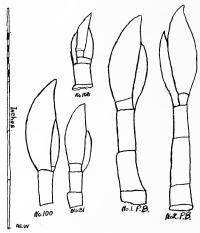
Does cold weather retard the growth rate and warm rainy weather increase it? If so, will that affect the total length made by the flower stalk? Do naturally short-stalked irises have as rapid a growth rate as tall-stemmed irises. If so, is the early blooming habit the result of the slowing down of the growth of the flower stalk? Is there a definite period during which elongation takes place? If this period is passed without the growth having occurred will the plants bloom with short stalks? When does the most rapid elongation take place? These and other questions prompted the experimental observations.

^{*} Science Series 10, "Iris Chromosomes," in Nos. 47-48.

[†] Papers from the Department of Botany, the Ohio State University, No. 320.

Materials and methods used. As subjects for the experimental work 6 plants of six varieties of tall bearded irises growing in the breeding plot in the Ohio State University Botanic Garden were chosen. None of these are commercial varieties but are seedlings that have been followed through and kept long enough to afford a stock sufficiently large to offer material in quantity for experimental purposes. Two of the varieties, namely No. 1 and No. 2, are Princess Beatrice seedlings which resemble somewhat the mother plant in height, foliage and flower color. No. 81 is a yellow of variegata origin. No. 108 is a mesopotamica seedling and No. 100 is a second generation mesopotamica crossed with a variegata. The last one named has the shorter stalk and early deciduous foliage known in variegata together with the large flower found in mesopotamica strains.

Measurements were made in inches from the apex of the rhizome at the soil surface to the highest point inside the fan of leaves that



had been reached by the flower stalk. This was determined as accurately as possible by pressing the leaves between thumb and fingers to detect the end of the stalk and measuring just below that point. The measurements were taken at 2 P. M. every day during the entire month of May. At the same time the temperature and other weather conditions as shown in tables were recorded. On May 1st all plants measured had a short flower stalk varying in the different specimens from $\frac{1}{4}$ to $2\frac{3}{4}$ inches. In all computations the original length measured on May 1st was subtracted so that all growth increases could be measured from zero.

As a check on the field measurements, a representative flower stalk from each variety was cut every week and dissected from the leaves. From this the actual length of the stalk was obtained by measuring it in the laboratory.

The accompanying diagram (No. 1) shows the actual length on May 2nd for each variety as measured in the laboratory. Length of the stems and the entire length including the spathes of the bud are shown. Table 1, accompanying diagram 1, gives the summary of the measurements as actually recorded.

TABLE 1

T .	26-	Overall	Stem	Nodes	No	dal lengt	h from k	pase to a	pex
Iris	May	Length	Length	Nodes	1	2	3	4	5
		inches	inches		inches	inches	inches	inches	inches
	2	2.60	.75	1					
37 700	9	5.75	3.50	2	1.75	1.50			
No. 100	16	22.00	20.25	3	2.25	11.50	5.50		
	24	27.50	25.25	4	2.00	5.25	12.75	4.25	
	2	3.90	2.00	2					
Prin. B.	9	12.50	10.25	2	5.50	4.00			
Sdlg.	16	24.00	22.25	5	1.50	6.50	10.00	2.50	1.75
	24	26.25	24.00	5	1.75	8.00	12.50	2.50	2.00
	2	1.50	.50	2					
3T 700	9	8.25	5.25	2	1.50	4.75			
No. 108	16	25.50	23.50	4	2.50	15.00	5.50	1.50	
	24	30.00	28.25	5	1.50	4.00	18.00	3.00	1.75
	2	2.12	.75	2					
N. 01	9	18.50	16.25	3	2.00	9.75	4.50		
No. 81	16	26.00	24.00	5	2.50	15.00	4.50	2.00	0.75
	24	27.00	25.00	5	2.75	17.00	4.75	2.00	1.00
	2	4.12	2.12	2					
Prin. B.	9	10.00	8.00	2	4.50	3.75			
Sdlg. (2)	16	27.00	25.00	4	8.50	10.50	4.00	1.25	
	24	31.25	28.00	5	3.00	11.00	12.00	1.75	.25

A careful comparison should be made between Tables 1 and 2. Examining the column in Table 1 headed "over all length" the growth by weeks is shown for a representative stalk of each of the varieties.

TABLE 2 Stem Growth on Tall Bearded Irises—May, 1932

Princess B Seedling	Av. growth per day	tor o	00.	.46 .70		1.16	2.16	1.25 2.37		3.45	1.91	1.91	.91	2.00
No. 81	Av. growth per day	tor 6 plants	00.	.46 .41		.46	.33	.70 1.75		2.50	1.58	1.83	1.33	1.25
No. 108	Av. growth per day	for 6 plants	(16)00.	. 55. 57.		.37	.54	.20 1.05		1.60	1.20	1.70	1.00	1.90
Av. growth	per day per		00.	.74		.54	.92	1.62 2.08		2.71	1.50	1.55	83	.72
		9	in.	ന ന പ	+	4	54	8 42 84 84 84		14	16	202	21	22
rice	H	5	in. 23	01 ଓ ଅକ୍ୟଧ	1	ව ස 4	1G 151	r- 6			13	16	17	×
s Beat	No.	4	in.	C1 C1	1	00 1√10	43	70 F~ പ4 ല4	ł	$10\frac{1}{2}$	1111	1 F	144	15½
Princess Beatrice		က	in.	' ന ന	*	6.0 814	4	0 8 8	•	113	13	15.4 15.4	$15\frac{1}{2}$	$16\frac{1}{4}$
H	Sdlg.	c 3	in.	 ⊘ ແ	ı	314	4	54	,	∞	10	131	144	15
	N N	Н	in.	C1 C	#	3 T	31	50 <u>C</u>	*	10	11	- F	153	163
Av. growth	per day per per	Piant	00.	49		.42	.41	.46 .79		1.04	1.21	1.25	95.	1.46
		9	in.		*	H 814	¢.1	CJ 44 814		52	L- 0	0 0	10	122
		ಗರ	in.	* — *	!	다 814	C.1 ∺2	CJ 44 ≈∤4		52 32	L- 0	0 0	$10\frac{1}{2}$	113
100	Purple	4	in.	-	!	E14.	c 1	୦. ୧୯ ଲୟ ଲ	•	142	6	7 6	10	614
Z	Pr	ന	in.	. 6044 —	Ť	E. 44.	6.1	ට දර ක4 പ	*	4	55	> oc	00 00 00 00	104
		c1	in.	. 6)4 L	*	$1\frac{3}{4}$	2 12 13	01 ಟ ಬ4		23 24 24 24	4 n	6.2	4 1~	∞
		П	in.	1 814 년	∛ i	L 4.	c ₁	ପୋଟ ^ଲ ଃ	,	දට ස14	4	ဂ ဗ	· -	00
Weather		Clear	Clear	Rain in air. clear	at 2 p.m. Rain at	clear	Clear Clear	Partly cloudy,	clear Rain in	a.m., clear	Cloudy	Cloudy	Cloudy	
E	remp. at 2 p.m.		νς. 80	099	.92	84°		80° 85°	08	.89	06.5	740	84°	78°
	May		-	ପୋଟ	4	70		9 1-	· ∞	6	Ç	3 =	12	13

[84]

TABLE 2—(Continued)
Stem Growth on Tall Bearded Irises—May, 1932

Princess B Seedling	Av. growth per day	for 6 plants	1 41	1.50	1.33	1,41	.91	.16	.91	1.16	.37	.37	00.	00.	00.	42	.16	00.	20	00.
No. 81	Av. growth per day for 6 plants		1.75	1.91	1.87	1.96	1.54	.33	.58	.25	.41	.50	00.	00.	00.	.12	00.	.22	00.	00.
No. 108	Av. growth per day for 6 plants		2.40	2.60	2.40	2.25	1.35	09.	1.30	1.60	.50	.50	00.	00.	00.	.20	00.	.10	00.	00.
Av. growth	per day per	Piant	1.05	2.55	1.25	1.50	1.00	1.00	.30	.30	.50	.55	00.	00.	.05	00.	00.	.20	00.	00.
		9	in. 24	243	25	56	27	22	$27\frac{1}{2}$ Bl.	284 Bl.	284	281	"	"	"	,,	"	59	,,	"
ice	Η.	ಸಂ	in.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Beatı	No. 1	4	$in. 17\frac{1}{4}$	19	21	22	24	42	24	24	25	26	"	,,	,,	,,	,,	,,	"	,,
Princess Beatrice		က	in. 18	20	21	23	233	27 23 42	24	$24\frac{1}{2}$	24½ Bl.	25	,,	,,	$25\frac{1}{4}$	٠,,	,,	,,	,,	,,
Pı	<u>5</u> 0	c ₁	in. 174	$19\frac{1}{2}$	$20\frac{1}{2}$	22	223	27 27 48	23	23 Bl.	24	243	,,	"	,,	,,	,,	25	;	"
	Sdlg.	Н	in. 18	$20\frac{1}{4}$	22	24	25	25	25	25	252	26	"	,,	,,	,,	,,	"	;	,,
Av. growth	per day per	Piant	2.33	2.25	3.54	2.83	1.51	1.16	.92	80.	.25	.25	00.	00.	.04	00.	00.	.16	00.	00
		9	in. 14	$16\frac{1}{2}$	50	$23\frac{1}{2}$	243	Bi.	25 Bl.	25	23 53	253	,,,	,,	,,	"	"	"	;	"
		ಸಂ	in. 14	$16\frac{1}{2}$	20	22	233	24 Bl.	24 Bl.	24	24	24	"	,,	,,	,,	"	,,	"	"
100	Purple	4	in. 14	$15\frac{3}{4}$	19	22	23.1	25 Bl.	25 Bl.	252	$26\frac{1}{2}$	27	"	,	,,	,,	,,	271	,,	"
N.	Pu	က	in. 134	16	$19\frac{1}{2}$	22	233	25½ Bl.	26	56	$26\frac{1}{2}$	27	,,	;;	,,	,,	,,	,,	,,	"
		c ₁	in. 10	12	16	19	21	21 21	24½ Bl.	242	$24\frac{1}{2}$	$24\frac{1}{2}$,,	,,	25	,,	,,	,,	,,	,,
		-	$\frac{in.}{10\frac{1}{4}}$	12	16	19	$20\frac{1}{2}$	H 53	24 Bl.	54	42	24	,,	,,	,,	;	"	243	_,,	;
	Weather		Clear	Clear	Rain	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Rain	Cloudy	Clear	Clear
É	at 2 p.m.	ļ	05.0	88	750	820	.98	84°	.98	°88		84°								
-	May		4	15	16	17	18	19	20	21	22	23	24	25	26	27	28	59	30	31

[85]

Table 2 shows the details of only two of these, namely, No. 100 and Prin. Beatrice Seedling No. 1. Looking at the data for the 16th of May on each of these it is shown that the laboratory measurements exceed the field records. For example, No. 100 has only three nodes, Prin. Beatrice Seedling No. 1 has five. length is therefore not only a matter of the growth of the internodes but also a matter of the number of nodes present. behavior of these two varieties a possible comparison may also be made between other varieties which have herbaceous and membranous spathe valves. In the Prin, Beatrice Seedling No. 1 the membranous spathe valves do not contain much water or other sub-This may possibly account for the greater elongation of the flower stalk, in that variety as compared with No. 100. It is believed that this careful comparison is necessary to understand what is taking place rapidly in the day to day growth of the plants. It is further of great interest to see that when maximum recorded length is attained that the greatest growth period has been passed.

The weather records show that the entire month of May, 1932, was free from any striking weather changes. were no damaging night frosts, the weather remained evenly mild. The growth made by the plants happened to be quite favorable for study in consequence. Both daily records and three-day summaries were made of the growth of the plants. The daily records, as is to be expected, only show a very general trend of the growth changes. The summaries in Table 3 bring out the responses to changing water content and other variable factors. Table 2 presents the growth in detail made by two varieties. Table 3 summaries the weather and growth for all varieties studied and presents the results in the form of three-day averages. The results show that No. 100 and No. 108, both of which have inherited some of the traits of typical mesopotamica irises, are later in their maxima of growth than the two of pallida and variegata parentage. The two Princess Beatrice seedlings made their maxima on the same day. The maxima for No. 100 and No. 108 came in a three-day period which included a rainy day, the growth as measured being achieved mostly on that day. The growth maxima for the other three varieties came during a three-day period that included two cloudy days and one rainy day. It is extremely interesting to see that both environmental and hereditary factors are thus clearly demonstrated by the behavior of the distinct groups. It is our opinion that only

TABLE 3
Three-day Averages of Growth Rate

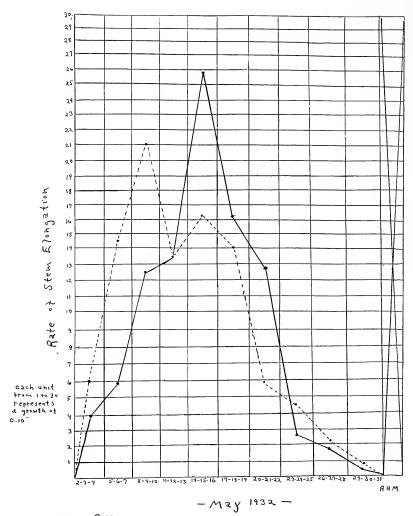
May	Weather	Av. temp.	No. 100	No. 1	No. 108	No. 81	No. 2
2-3-4	Clear	deg. 68	in. .44	in.	in.	in44	in.
5-6-7	Rain at 5 a.m. 5th—Clear	83	.55	1.54	.59	.92	1.92
8-9-10	8—Prt. cloudy 9—Rain in a.m. 10—Cloudy	70	1.08	1.91	1.45	2.11	2.31
11-12-13	Cloudy	79	1.21	1.03	1.54	1.47	1.60
14–15–16	14—Clear 15—Clear 16—Rain	83	2.70	1.61	2.46	1.84	1.41
17-18-19	Clear	85	1.83	1.13	1.40	1.27	.82
20-21-22	Clear ·	84	1.19	.53	1.13	.41	.81

by retarding the opening of the flower buds that increased stem growth could be obtained in the mesopotamica group, above the normal for any given variety.

Individual differences in growth that deviate markedly within a variety must be attributed to local effects of water supply or cultivation, or injury to the roots. The maximum growth recorded in any single 24 hour period is 3.5 inches. During the period covering May 8th to May 19th the plants with but four exceptions made at least one inch of growth per flower stalk in each 24 hours. The maximum record and also one of the minimum records were both scored in one variety, No. 100, showing clearly that the growth attained was markedly "conditioned" by the environment of the individual plants.

Stem elongation and the growth in the opening of flower buds seem to be antagonistic processes, as in all cases there was a decline in elongation of the stem as soon as buds began their final elongation and closing. In the early blooming varieties the maximum elongation of the stem was also early whether the variety was long stemmed as is true for the two Princess Beatrice seedlings or shorter as is true for No. 81 of variegata parentage. In the event that

Diagram 2



Growth Patterns

A-----

bud opening should occur abnormally early or that maximum growth should not be attained before bud opening was initiated, the stems would not reach their potential maximum. In varieties 100 and 108 the maximum of stem elongation comes later and buds are consequently delayed. As is well known in many varieties, hybrids of pallida and mesopotamica groups are somewhat between the parents in their bloom time—a result that has been unfortunate in throwing all the bloom period in most gardens into a very brief burst of glory. If the results be pictured as in diagram 2 they show a steep climb for the rapid elongation of the stems of the early varieties (growth pattern B), a slow steady climb for the later varieties (growth pattern A), followed, after the period of maximum growth, by unsteady though decreasing elongation of the stem while the flower buds were going through their final stages of growth before opening.

Conclusions. (1) There is a distinct lag between the weather changes and the growth rate in flower stalks, the effect expected occurring 24 to 96 hours after the causal factor operated. The most marked cause of change in growth rate was increased precipitation.

- (2) In all the irises studied there is a similarity in the behavior pattern of growth. Stem elongation proceeds to a maximum rather steadily. After the maximum, the flower buds go through their final stages of growth before opening. During this time the flower stalks decline in growth with a marked variation shown in the day to day records.
- (3) The period of maximum elongation falls into an inherited behavior pattern. The seedlings of early blooming tall stemmed plants are early. The seedlings of the mesopotamica group are later.
- (4) The actual height of stem attained depends on both inherited traits and the environment to which the plants are responding. The most striking cause of decline in growth in stems is apparently the series of changes that leads to the maturing of the flower bud. Reference to Table 3 and to diagram 2 brings out the details that lead to these conclusions.

TID-BITS 32ND

WINTER FOLIAGE.

On Feb. 1 I walked around the garden and took stock of the iris which had leaves and which had none. Those with a good six to ten inches high were Arsace, Aurelle, Azyiade, Ballerine, Baronet, Bashi-bazouk, Caterina, Fidelio, General Gallieni, Gernez, Henri Riviere, Jussieu, Lady Foster, Leverrier, Micheline Charraire, Mlle. Jeanne Bel, Mme. Durrand, Mme. Cecile Boscant, Monsieur Masse, Paragon, Rajput, Rosado, San Gabriel, Shelford Chieftain, Souv. de Loetitia Michaud.

Alcazar, Amas, Isoline, M. Arnal, M. Brun, Mady Carriere, Nancy Orne, Suzon, Thais, and Troost had little foliage while those with none were Allies, Ambassadeur, Amneris, Avalon, Celeste, Chatelet, Cherubim, Col. Candelot, Clematis, Coppersmith, Deuil de Valery Mayet, Florian, Gericault, Halo, Her Majesty, Liberty, Lohengrin, Lord Lambourne, M. Boyer, M. Cornuault, Mlle. Schwartz, Mme. Chobaut, Marquisette, Mother of Pearl, Mrs. H. Bowles, Numa Rumerstan, Ochracea, Peerless, Tunisie, Veloute, White Queen.

For what it may mean to a botanist practically every "red" iris in the garden had no leaves in winter.—Rome, Countess Senni.

The value of cheerful green in a garden within sight of the house is apparent and a glance at the list emphasizes the fact that heredity alone is not a sufficient guide to winter growth. Among those with good foliage we find derivatives of cypriana (Caterina, Lady Foster), of mesopotamica (Rosado), of Ricardi (Micheline Charraire, Souv. de Loetitia Michaud) in the majority but among the less valuable groups we find Avalon, Nancy Orne, Mlle. Schwartz, from similar sources as well as germanicas, pallidas, and variegatas, which tend to have no winter foliage.

I wonder is it safe to assume that varieties with winter foliage are less reliable in the Nashville-Carolina region of uncertain freezes?—Ed.

SYMPOSIA AND RATINGS.

In 1922 (Bulletin 5) 600 varieties were rated, of which 56 were rated at 85 or over. In the next five years 25 of these dropped be-

low and by 1932 only one, Souvenir de Mme. Gaudichau, remained at 85. (It should be remembered that relatively few judges rated old varieties in 1932.—Ed.)

High class irises, Lent A. Williamson 96, Princess Beatrice 95, Dominion 94, Ambassadeur 94, Ballerine 94, Asia 92, and Mme. Durrand 92, dropped below the 85 level.

The 1927 Symposium (No. 28) rated 800 varieties and there were 120 in the 85 or better class and then again 106 (over 88%) were dropped below in 1932. Among those reduced were again the "top notchers," Candlelight 96, Purissima 95, Morning Splendor 91, Bruno 91, Peerless 91, Santa Barbara 91, Petrucchio, Geo. J. Tribolet, and Micheline Charraire at 90—all below 85 in 1932.

There remain only fourteen of the 1927 winners: Mrs. Valerie West, Grace Sturtevant, San Francisco, Dolly Madison, Souv. de Loetitia Michaud, Frieda Mohr, Cardinal, Germain Perthuis, Sequoiah, William Mohr, Sir Michael, Souv. de Mme. Gaudichau, Mildred Presby, rated above 85.

The 1932 ratings (No. 45) report 1300 irises, double the number of 1922, and there were 138 in the 85 or better class. Hence we have 124 new irises, all grand, superfine, our very best.

How people's eyes would sparkle if they could see all these 138 irises blooming at the same time in a single garden. Mankind should be very grateful to the iris societies and the breeders who by their untiring energy and patience have given us these new creations—check lists, symposia, ratings, science notes, law and order out of chaos, better and still better irises.—C. U. Bear, Detroit, Mich.

The 1933 Ratings, by casual count, list 187 varieties of very recent introduction, of which 119 belong in the 85 or better class and only 13 rate below 80. Whether the 119 are the 124 of 1932 your editor has not the patience to discover. As he still considers many of the unmentioned as indispensable in garden effect he is frankly little interested in the grand but much alike varieties.

SCORING.

We have, unconsciously, been led to think in the past when fine irises were few that such might be the case when noting the efforts to supplant such things as Princess Beatrice (1898), Alcazar (1910), Ambassadeur (1920), all of which have an indefinable air of what Mrs. McKinney would term "good breeding." Even such

unreliable things as Isoline (1904), Mme. Durrand (1912), and Asia (1916) seem to have an elusive quality of tint, form or carriage which have never been surpassed. But ratings are necessary and in spite of some present shortcomings may be regarded as essential to the continuance of improvement.—E. N. S. Ringueberg, N. Y.

I note that the general public is more interested in color than in any other one make-up of an iris and I am sure it must also influence the judges. Two judges might rate Purissima and Pluie d'Or exactly the same except for color and so on. Hence why not have a fixed standard in color group. Select say 80 for Purissima as a white, Souv. de Loetitia Michaud as a pale blue and so on. These ratings would be known and when we find Polar King at 94 and know it has been compared to Purissima at 80 we would have a definite idea of its quality.—Sam Graham, Ga.

For the life of me I cannot see any advantages whatever in substituting an A, B, C system for our present scale of 100 points. Wouldn't this be going from a more to a less (much less) refined system of measurement? In my opinion it cannot be justified. It would be like taking the degree marks off a thermometer and substituting hot, medium, or cold.—Paul H. Cook, Ind.

At the end of the iris season, having rated in detail some fifty odd irises, mostly recent introductions, I am submitting a brief summary of my views regarding last year's and this year's work. In view of the heated criticisms of the 1932 ratings and of the number of judges who participated, I am surprised at the small number of ratings on many varieties.

My contact with judges last year and this discloses the tendency, with the present system of rating, of reserving from 2 to 10 per cent for future improvement. I myself have worked on this assumption, placing my highest mark at 93. However, I doubt the wisdom of a course of this kind. If we adhere to the percentage ratings, we shall have to re-rate frequently, scaling down old ratings as better irises are introduced, with the result of disappointment to purchasers who will find their 90 per cent values in a few years down to 80. Also, the work involved in the making of new ratings every few years will prove too great a burden on the judges, and the number of reports will decrease in consequence.

The system of Mr. Van Name (A. I. S. Bul. No. 45) seems to me to solve the difficulty. His is a numerical valuation which could be

made permanent, or say, fixed for 10 years, with careful ratings of new irises on the basis of the ratings of our present list, and no limit at the top except those dictated by common sense.

My ratings this year range from 75 to 93, with 7 at 90 and over, 16 over 85, 14 at 84, 10 at 83, and 8 at 82, with Ambassadeur at 81; it was 83 in last year's average.

If we re-rate annually on the percentage basis, I think the judges should be instructed to give a rating of 100 to the best iris they have seen, unless it has unmistakable flaws which should scale it down. I am in favor of not holding points out for future betterment. All our judges are in a position to see enough good irises to justify the above; no one can see all the good irises in existence.

However, the above would only be an improvement to a system which, it seems to me, should be superseded by the Van Name plan, in the interest of permanence in rating, economy of effort and the prevention of disappointment on the part of purchasers. Purchasers should be warned not to buy "sight unseen," for in a country as large as ours the iris which is entirely satisfactory in one section may be a complete failure in another.

In addition to the detailed ratings of 1933, I have made gross ratings, in comparison with the 1932 average ratings published in Bulletin 45, on about 150 varieties that I thoroughly know, as they perform in this section. If all judges were asked to furnish lists showing how irises behave in their sections, a valuable cross-section of opinion covering the entire country could be obtained without too much work, and a large enough number of ratings for a comprehensive list could be published. It would be well for distributors to state that some varieties, while very desirable, are not dependable in some localities. I am aware that this is done to some extent, but it is not as widely practised as it should be.—Louis Schmidt, N. Y.

IRIS MINUTA.

It bloomed last spring but I was disappointed that the flower lasted only a day. There were nine stalks and each had two flowers so there were nine blooms one day and nine the next but as I leave early for the office I had only a glimpse of them and no chance to see them at all over the week-end.—W. Herbert Dole, N. J.

FALL BLOOMING.

Edouard Michel, an established clump planted in 1928, threw three spikes in the second week of December (1932) and after cutting the stalks five of the eleven buds opened. In 1930 the buds were frozen despite protection out-of-doors.—M. E. Douglas, N. J.

JUDGING.

I would like to see 10 made the required number of votes for an official rating instead of 5 but if we must stick to 5 make it at least in three different gardens wisely separated. I am going to use that stalk of Directeur Pinnele that was in Mrs. Pattison's garden as a case in point for this and the following paragraph. I saw four, there were probably more, judges working on it and if it is rated this year it will probably be on that one stalk. Of course it is a good Iris but how good in your garden or mine?

If the judges stuck strictly to their rating schedule things might be a little better. I watched two judges working on Pinnele and when they were through they compared notes; there was a 4 point difference but one did not even smell it for fragrance and the other had.

That Ethel Peckham you saw at Freeport was planted late in '32. You should have seen it in my garden or have you seen it in Bluffton. I expected to see something from Dr. Everett about his mistake in saying Ethel and Joycette were identical in color and I am pretty certain I know how he made it. I think he saw two Ethels in Mrs. Peckham's garden.—A. W. Mackenzie, Ind.

FORM.

Digressing a moment on form. How often we read the description of "ideal form," which may mean anything and does, as the ideal varies with each breeder. Why not state the actual form, and permit the buyer to select those which really have the form which follow his own ideal? I like all forms, but not with all types. a tall one I think the ideal should be one which shows the entire flower and its beauties without the aid of a step-up of some sort. That would mean that flaring and horizontal falls would be the least desirable. With medium height plants, the flaring falls, horizontal drooping and straight-hanging falls would seem ideal, and for lower growing things, the intermediates and dwarfs, the flaring, horizontal and drooping falls would be ideal, with emphasis on the first two. It would seem that at no time would the incurved fall find favor, yet even this might be a suitable form for extremely tall growing things, if the flower be in proper proportion throughout. (Ballerine perhaps.—Ed.)

CULTURE.

I have used ammonium sulphate, manure water, bone meal and complete commercial fertilizers with equally good results in both bearded and beardless Iris, hence their appearance together in my Weed Patch. Blue King, Perry's Blue, Siberian seedlings, Pseudacorus, Dorothea K. Williamson, Tectorum, Korolkowi hybrids, Japanese and Ochroleuca, are happily at home under those conditions, but I do water in case some of them approach the moisture requirements and find some of the bearded liking moist conditions as well. However the ideal position for Siberians and the other beardless liking plenty of moisture is at the foot of a slope, particularly where the drainage from a septic tank flows. Here the clumps are congenial and luxuriant and the bloom unsurpassable.— Chas. E. F. Gersdorff, Washington, D. C.

MEGALOPHILIA IRIDIS.

No, it is not a new type of noctuid moth whose pestiferous larva gnaws its way up and down our newest and most expensive rhizomes, but its presence in the Iris world threatens to be quite devastating nevertheless, unless some way to stop its insidious inroads can be quickly found and widely distributed. Unlike most of the older pests that beset the ways of the Iris enthusiast this newest of Iris troubles affects only the accredited judges of the A. I. S., if we are to believe the outpourings of current Iris literature, and worst of all the judges themselves do not seem to be aware of the infection and therein lies the hopelessness of the Society's immediate future. Could the judges but be convinced of their serious condition and be prevailed upon to throw off the afflection before it is too late and becomes chronic, all would be well.

What if a judge does mention bigness or tallness as if it were at least not a demerit? Does that prove that he has no appreciation of the beauties and many excellent qualities of the vast number of middle-ground things that are less big or tall? His comment is not necessarily attributable to that popular American trait that leads so many hundred-percenters to worship at the shrine of mere BIGNESS. May it not rather be suspected that these critics of the judges overlook one very essential point? We are all bent on enlarging the Iris field in every dimension; we want greater and greater variety in color till we shall include pure reds, true blues, clear rich yellows, none of which we yet sufficiently possess. We

want to extend the season from earliest spring to late fall. interests such as these beckoning to every breeder, and to all those who more modestly disclaim the status of breedership for the less pretentious attitude of mere growers of seedlings, there are bound to be many new things produced, and many desirables vet to be produced, if possible. But—there is a middle position in all these fields of interest, of size, height, season, color, so absolutely well supplied that room for improvement is practically nil. As we extend toward the outer limits of these various fields, toward petiteness on the one hand or gigantism on the other, toward the unusual in color or the extreme of earliness or lateness, we naturally encounter less and less of competition, and value-worth-mentioning is enhanced accordingly, and the judge who praises it, thereby demonstrates his real fitness for the office. He may not worship bigness at all for its own sake but does recognize the fact that size sets this particular variety apart from some competitor it might have to meet if in a different size range. So of height. The middle heights are so absolutely filled with almost every conceivable variation of form and color that only by being still taller, or exceptionally dwarf, or perhaps bizarre in color, is a new variety lifted (or lowered) into the realm of superiority.

May I ask, then, are we to cast aspersions upon our judges to point where they will fear to mention tallness or bigness in a new variety lest they shall be set down by the rest of the Society as unappreciative of the good qualities of many smaller flowered varieties of medium height? Either leave the judges untethered or do away with them altogether. They cannot be expected to see eye to eve with each other at all times. They would not be good judges if they did. Even the judge who finds it hard to mark some prime favorite up to a hundred may nevertheless be a worthy judge. couldn't do it myself because I have never seen an Iris (not even one of my own!) that I could not find room for improvement on some added feature that I would rejoice in its having. Naturally, then, I have never seen an Iris that I could rate at 100, perhaps none that should come within 5 points of the perfection imaginable. But I would by no means disbar the judges of more effervescent temperament just because I feel there is a good 5% margin or more between the best we have and the better we might have -J. Marion Shull.

GEORGIA.

The Iris blooming season in the South has passed and a very successful one it has been. I have never seen the bloom of finer quality. While we had an excessive rainfall during the blooming season it proved more beneficial than otherwise except in one or two instances when some damage was done. The season, however, was such that blooms could be judged under all variety of weather conditions. Many of the newer sorts bloomed for the first time in my garden and in most cases proved worthy of the praise given by their introducers. Depute Nomblot, Persia, Mary Geddes, Buechley's Giant, Rameses, San Diego, Evolution, Monterey, Helios and Clara Noves were especially noteworthy. Buechley's Giant, a massive blue was the largest bloom in my garden, with rare form and remarkable substance for size. I was disappointed in the highly rated Carfax; its wonderful branching did not appear, nor was the bloom up to average Dominion standard. When better established it may prove better. Neither was Wambliska up to expectations: had blotched falls which destroyed its otherwise attractive-Claude Aureau gave remarkable bloom; the color of falls clearer than those of Cameliard. However, could I choose only the one, Cameliard would be my choice. This is one of the best growers in my garden and a mass makes a remarkable showing; probably the most popular of all with visitors to my garden. Mme. Durand, also, does splendidly and was very fine this season. Contrary to most growers' opinion, it is a profuse bloomer with me and perfeetly hardy. The only fault I can find is the blooms have a tendency to pale. All Dominions gave their usual fine blooms, while I had a few good blooms from the California varieties; San Francisco, Los Angeles, Purissima, Santa Barbara, and others. were seriously damaged by our early Spring freeze. had gotten well under way and the results were disastrous. Where our winters are normal, with no late freeze, these varieties do well and produce remarkable bloom. With this uncertain weather condition they cannot be recommended for hardiness in the South. However, I cannot give them up, for nothing can surpass their wonderful bloom. I believe with a good heavy mulch of peat moss and straw they will be able to survive. Unless one is willing to give this extra care I would advise avoiding them.

I also note a number of Southern Iris growers complain they have trouble in growing the yellows. I cannot understand this as all I have tried do well. Pluie d'Or, Chasseur, Nebraska, Coronation, Amber, Helios, and even Mirasol grow well and have proven perfectly hardy. W. R. Dykes came through our past trying season in fine shape and to-day looks the picture of health. While it failed to bloom this (its first) year the fault was not due to growing conditions but rather to the small rhizome sent me. This makes its behavior the more remarkable. I feel safe in recommending it for this section of the South for planting without protection. comparatively older varieties Souvenir de Loetitia Michaud, Ballerine, and Wedgwood were notably affected by our late freeze. The beautiful Avalon, however, which some consider more or less tender, came through in splendid shape and has always proved hardy with me. I am very partial to this variety; it is beautiful when well Of the lower growing varieties Cameo, Arlette, Flammenschwert, King Karl, King Midas, Mystic, Peau Rouge, Ariel, Medrano, Wm. Mohr, and Iduna are especial favorites and do splendidly.

A few words regarding planting and growing Iris which I have found successful for the South. Contrary to general advice I find well rotted manure very beneficial where the soil becomes hard and baked. By working in well, not closer than six inches from the rhizome it not only renders the soil pliable but is a splendid stimulant to growth. Peat moss I find also beneficial where humus is lacking. With these I use hardwood ashes freely and in early Spring a ringing of Acid Phosphate. I never use Nitrate of Soda, and lime only sparingly. I find it conducive to root rot, especially if used to excess. Some of the California varieties seem to be helped. especially when the soil becomes too acid. I prefer acid to alkaline soil. The color of bloom is richer and growth of plant better in soil that shows decided acid by Litmus test. Good cultivation and shallow planting round out the program. Root rot is the only disease that causes trouble; more so in wet seasons combined with hot weather. But uncovering the rhizome and dusting with Cupro Jabonite solves the problem. If the variety be expensive it is even better to cut away affected parts before applying the Jabonite. This has proven a sure remedy. I have never been troubled with Borer, nor so far heard of its existence in the South.

To sum up I should advise against the tenderer varieties unless willing to give proper protection against late freezes. Those with mesopotanica, Ricardi and cyprianna parentage are the ones to especially guard against. Otherwise I feel all varieties will do as well, and in some cases even better, in the South than in other parts of the country—Sam. L. Graham.

TO-READ OR NOT-TO READ

A group of books and articles on the native irises have been accumulating on my shelves for some years and with the listing of more species each year and the introduction from Mr. Washington and others of more varieties a study of habitats may aid greatly not only in selecting but also in succeeding in their cultivation. Even now it would seem that all could be grown as easily as the Japanese and that they will succeed with less care and water in many sections where the Japanese are not easy.

The Journal of the New York Botanical Garden naturally carries many of Dr. Small's reports of the irises of the Eastern and Gulf States. Chronicle of Eastern American Irises (31: 40–45), Iris Studies in the Gulf States (31: 237–244), Harvesting Iris Seeds in the Gulf States (31: 272–277), and Altitudinal Distribution of Eastern American Iris (32: 49–66), Salvaging the American Irises (32: 175–185), Vanishing Irises (32: 277–287), Winter Iris Notes (33: 26–32), The Louisiana "Red" Irises (34: 39–40).

That they should supplement the twenty-four plates and descriptions issued in *Addisonia* (9: 49-64, 12: 1-16, 14: 1-16) is not surprising but they include far more than mention of these new Gulf State species.

In the "Chronicle," in 1753, Linnaeus lists versicolor, virginica, and verna; in 1788 Walter adds hexagona and tripetala in his Flora Caroliniana and starts the confusion between versicolor and virginica; in 1789 Aiton adds cristata in his Hortus Kewensis; then came fulva Ker in 1812 and a year later prismatica Pursh; another break and Nuttall adds lacustris (1818) and missouriensis 1834. The so-called carolina (1822) and caroliniana (1888) both proved to be the virginica of Linnaeus and there were other misnomers well up to 1913, but, with the exception of Hookeri (1840) and foliosa (1902), there were no additions until Dr. Small began, in 1924, publishing the descriptions of some three dozen species.

In The Altitudinal Distribution of Species, we consider the geographic spread of species, either from the Northern glaciated plant reservoir as in *Hookeri*, versicolor, prismatica, and lacustris, or from the Southern Blue Ridge-Piedmont plant refuge from whence most of our fifty species descended into the Coastal Plains. Verna is still to be found at 4,500 ft. and virginica at 2,500, but for the most part they inhabit low elevations. Under the heading "Salvaging" Dr. Small reviews the changing habitats and the range of color and under the title of "Vanishing" records the destructive progress of civilization. The balance of the articles refer entirely to the marvelous iris field of the Mississippi delta.

In The Brooklyn Botanic Garden Record (xx: 243) of July, 1931, Dr. Reed reports on the Hybrids of fulva and foliosa and illustrates it with a colored plate of the parents and five fascinating seedlings of Dorothea K. Williamson, which range in color from purple to clear yellow and pink. As usual first generation plants are more or less similar, while it is in the second generation that new types appear. It seems unfortunate that Mr. Washington can offer us little record as to the breeding of his introductions and it is curious that we still have no clear yellow hybrid in our gardens as pictured by Dr. Reed.

The Native Iris of Ohio and Bordering Territory (from the Ohio Journal of Science, 31: 29-42), with accompanying maps by A. E. Waller. These include cristata, lacustris, verna, fulva, foliosa, virginica, and versicolor. The first extending from the Appalachian Highland to the Ozarks and southwestward is found in drained but moist and cool soils and may form a mat in association with ferns, mosses, and violets, while I. verna requires greater drainage and rarely forms a mat. I. foliosa is a plant of small stream terraces and succeeds well in partly shaded locations, while I. fulva, virginica, and versicolor are marsh and stream border plants.

NOTICES

Awards at Wisley, 1933. F.C.C. to Mrs. Valerie West (Bliss 1925). A.M. to Gloaming (Mur. 1929), Yves Lasailly (Cay. 1928), Mary Geddes (Wash-Stall. 1931), Moonbeam (Mur. 1927), Nicolas Poussin (Cay. 1929), Rhodes (Wal. 1931), Zwanenberg (Den. 1912).

Chromozones. Dr. Everett requests cooperation on securing material (root-tips) for study and is particularly interested in getting it from three generations, the four grandparents, two parents, and one child. He will supply directions and containers.

"Purple Flag." Will not more of our members try their luck in hybridizing this old-time variety that is variously listed as Florentina, germanica, Kharput, atropurpurea, Askabad, etc.? Also, Kochi, Purple King, Crimson King, Fontarabie, and are there still others? As winter bloomers in the South could we not achieve color breaks? Countess Senni.

ERRATA. On page 84 of the April Bulletin, referring to Iris Cold Storage, the three captions under "18 days" should all be dropped one line as follows:

		6 days	12 days	18 days
Temperature	42	Flowers open	Flowers withered	
- "	38	Half open	Entirely open	Withered
"	35	Slightly open	Beginning to open	Slight swelling
"	32	No change	No change	Partly open

Iris Society's Show (England), scheduled for June 13–14 was cancelled owing to season.

Color Standards and Nomenclature, by Robert Ridgway. Published by A. Hoen & Co., Baltimore, Md. Present price, \$30.00. 30% discount if ordered through Secretary of the A. I. S.

Fragrance. All breeders and introducers are requested to include fragrance when a variety is registered, and to specify intensity and kind. Characteristic scents are locust blossom, orange blossom, grapy, spicy, cinnamon, carnation, sugary, lemon, clover, hyacinth, water-lily, new mown hay, lily, geranium, tuberose, vanilla, verbena, violet, apricot, plum, almond, apple blossom, etc., in slight to extremely strong.

GENETICS.

You have posed more questions concerning Iris genetics than any one as yet knows how to answer or probably ever will know. "Do you find Iris color to be a unit character?" Not only is there no evidence that it is, but rather every indication that color, as exemplified in the tall bearded Iris, is an extremely complex thing with perhaps hundreds, maybe thousands, of genes involved in this one element of flower make-up.

Iris color, as you may recall, is of two categories, a sap color supplying all the varying tones from white through lavender to the deepest of blue- and red-purple on the one hand, and on the other a plastid color varying from white to the deepest yellow, almost orange, these two types of color capable of infinitely varying combination in those varieties which we designate as "blends." No, it it quite unthinkable to go back to the classroom and the classic problem of color in guinea-pigs and apply the results to the Iris of our gardens.

So, too, with "form," "form of standards," "form of falls," "length of fall," "shape of fall," "width of fall," "width of haft," etc. So many genes are probably concerned with every one of these items that it is apparently hopeless to disentagle them and demonstrate the status of unit character anywhere along the line. Why? Just because the Iris is what it is, a creature of exceeding complexity whose life for some centuries has been one of most scandalous miscegenation if I may so designate it, and whose indisposition to seed freely to its own pollen makes it quite impossible for the geneticist to put his questions to the flower itself and get the answers he desires. Of all the flowers in creation there are probably few less satisfactory to work with than the tall bearded Iris from the view-point of the student of genetics. Only from a flower that can seed freely to its own pollen can we hope to get reliable data on genetics and I feel quite safe in predicting that all the supposed genetic results obtained from the tall bearded Iris, on whatever authority set forth, is mostly sheer guesswork; an attempt to account for the uaccountable.

Laws of heredity undoubtedly obtain in the Iris as elsewhere and it is well to use every iota of general genetic knowledge available in planning the production of new seedlings, but if you want to delve into the basic principles of genetics by all means use something more amenable than the Iris. All this may sound very discouraging but go on and make your experiments; get all the fun you can out of it and keep an eye out for any genetic indication that may crop out—but avoid any categorical statements as the result of such observations for they are almost sure to trip you up next time you try to do the same thing.

Neither do I know of any correlation between time of ripening of pods and any other character of plant or flower. Most plant species show such phenomena, possibly due to a number of causes, but I see no warrant for expecting any corresponding differences among the offspring.—J. Marion Shull.

WINTER PROTECTION.

This is rarely a matter of actual cold and frequently a matter of either standing water (and ice) or untimely changes from cold to warm. Raised beds, ridges, or even mounds for a clump, assist drainage and the lightest of coverings tends to equalize temperatures. None of the growers permit water to stand over the rhizomes in winter and covering materials are various. Miss Sturtevant, in Massachusetts, uses a slight covering (2-3-inch) of leaves on established plantings with an occasional piece of burlap draped on a stick for special clumps of suspicious varieties. This shades the plant without forming a too damp blanket. Mrs. Patterson, in Illinois, gives a heavy 4-6-inch cover of straw over the whole bed, but it is done largely because she is away in the winter and thus not able to watch closely for odd requirements of shelter here and there. Further south (or in England) so-called tender varieties are put in cold frames (or given temporary winter shelters of glass or boards over loose leaves) in order to prevent the development of stalk growth in an unseasonable warm spell. Near the shore marsh hav is a popular covering and inland, where leaves are not available, rye or oat straw (hay mats too closely). Any material that permits air circulation is satisfactory whereas things like manure that hold moisture are often fatal.

Soil and exposure affect the need of covering seriously as in gravel or sandy loam roots do not heave badly, whereas in clay loam they do. Even the slightest of slopes to the north or west thaw out less quickly than those to the south and east and the plants are less subject to heaving. New plantings made in the fall (as they always should be) frequently need resetting (a mere stamping the rhizome back into the ground) after every thaw and with plantings made in late fall the plants should be given frequent attention.

Tenderness in the Bearded Iris is due almost entirely to the freezing of flower buds that have started prematurely. This injury lets in rot and borers. As a matter of experience New England has far better success with the so-called tender varieties of cypriana and mesopotamica parentage than Georgia or Tennessee where warm spells in winter are usual. Practically all the New England growers succeed with California varieties with but slight additional care as to drainage and protection.



IRIS



NICHOLLS INTRODUCTIONS

Honorable Mention, American Iris Society Crysoro, Purest, finest, deepest yellow, \$7.50 Red Robe, Giant, velvety, deep rich ruby, \$25.00 Valor, Taller, darker, finer Sir Michael, \$15.00

We list the best of the Novelties, all the good Standard varieties, Dwarfs, and Intermediates. Also, one of the finest collections of Beardless Iris, including many rare and beautiful species. The finest of Stock-Free from disease-True to name

ROYAL IRIS GARDENS

J. C. Nicholls, Jr.

Camillus, N. Y.

IRISES

KATISHA, STANWIX— INTRODUCTIONS FOR 1933 Fairylea (1932), Guyasuta (1931), Edgewood, Elsinore, Lodestar, Serenade and other varieties.

> Descriptive list on request. C. H. HALL, Ingomar, Pa.

IRISES Best & Newest ALPINES from Pike's Peak IRISES .

Colorado Springs, Colorado

PEONY ARISTOCRATS

Best Varieties. Attractive Prices.

Fine quality roots, liberally graded. 22nd Annual Catalog Ready.

> Harmel Peony Company (Wholesale Growers) Berlin, Maryland

THE IRIS SOCIETY

(of England)

Application for membership in The Iris Society may be sent direct to the American Iris Society office. Make check for dues (\$2.85) payable to American Iris Society; send it to Science Press PRINTING Co., Lime & Green Streets, Lancaster, Pa. Mark it plainly "For dues for The Iris Society (of England)" and print your name and address.



IRIS

Do you **know** them?

How does a particular Iris rate compared to others? A catalog that uniquely classifies each Iris in its proper place in reference to other Iris, is

An Iris Lover's Catalog

Nothing confusing or misleading A worthwhile treatise with beautiful color illustrations for the Iris lover to study and enjoy. Copy on request.

Schreiner's Iris Gardens

Box 103B, Riverview Sta., St. Paul, Minn.

Robert Wayman's IRISES 1.200 Varieties

Hundreds of Rare Irises. Write for FREE Planting List ROBERT WAYMAN Box 26, Bayside, Long Island, N. Y.



Choice Iris. W. H. Kingsley, Box 382 Hayward, California.

SPECIAL NOTICE

Until the present issue of the New Peony Manual is exhausted the Directors of the American Peony Society have reduced the price to \$3.15, delivered. This is a reduction of 50% from former price and was prompted to meet present conditions and make it possible for every garden lover to obtain a copy, which at present price is below cost of pro-

This manual is the greatest book of its kind and will prove of great value to any peony admirer. Membership in the American Peony Society, four splendid bulletins, together with the peony manual for \$6.00.

Act quick if you desire a manual as at this low price we expect to soon dispose of the balance of books on hand. Address all communications and remittances to.

W. F. Christman, Secretary, American Peony Society, Northbrook, Ill.

Quality Tells-

We are sold out of all stock of

CALIFORNIA GOLD, the new \$25.00 Mohr-Mitchell Yellow, until next season.

CARL SALBACH 646 Woodmont Ave., Berkeley, Calif.

J. MARION SHULL Artist, Plant Breeder, Specializing in Iris.

207 Raymond St., Chevy Chase, Md. Productions include Coppersmith, Dune Sprite, Elaine, Julia Marlowe, L'Aiglon, Moon Magic, Morning Splen-dor, Nocturne, Phosphor, Sequoiah, Sylvia Lent, Tropic Seas, Waterfall.

Author, "Rainbow Fragments, A Garden Book of the Iris." Price \$3,50.

You Who Grow Iris—

Must certainly own, enjoy and profit by the reading of

RAINBOW FRAGMENTS

The Garden Book of the Tall Bearded Iris by J. Marion Shull

with many photographs and 18 iris portraits in full color from his own paintings.

"Brings to iris lovers the best and most complete information about the tall bearded iris that is to be had today in the pages of a book, covering the subject historically, the use of iris as garden material, its cultivation and care, the production of new varieties, a list of the

some four hundred kinds, from Afterglow to Zulu, graded according to height, time of blooming, rate of increase, color, garden value, etc."

Worcester Sunday Telegram.

better varieties and a comparative list of

Says Sherman R. Duffy-

'Mr. Shull has a trick of denuding his subject of fuss and feathers and getting down to solid meat, ignoring current legends and cultural traditions and basing his writing on the facts of personal experience. . . . At the same time he writes in a most pleasing style, fluently and never labored."

Now, by special arrangement with the publisher, you may purchase this useful book through the American Iris Society at the results price with its regular price with financial benefit to the Society. Send your check to

Price, \$3.65 postpaid From John B. Wallace, Secretary American Iris Society 129 Church Street New Haven, Conn.



The Glen Road Iris Gardens

offer many Novelties as well as a critical selection of

Standard Varieties

A list of your wants will receive prompt attention.

> GRACE STURTEVANT Wellesley Farms, Mass.



Distinctive Collection Opaline, Dorothy Dietz, Nightshade, Desert Gold, Mare-schel Ney-five out-standing iris—average rating 85—\$16.50 value for \$9.50. You'll the Williamson like Longfield Iris Farm Catalog. 429 Market St. Rluffton, Ind.

IRIS IRIS IRIS

Watch out for the ratings of my new Irises in this BULLETIN. I think it will be interesting reading, especially regarding these varieties, -GLORIOLE, MARY LEE DONA-HUE, LADY GAGE, ECLAT.

SUNNYSIDE GARDENS

L. Merton Gage

Natick, Mass.

The American Rose Society

Invites

Members of the American Iris Society who also enjoy roses to unite with it in improving and furthering the enjoyment of roses throughout the world.

throughout the world.

The American Rose Annual, sent to each member every year, describes all the new roses and is packed with information and inspiration for rose growers.

The American Rose Quarterly deals with current exhibitions, meetings rose pilgrimages roses.

meetings, rose pilgrimages, roster

of members, etc.
"What Every Rose Grower
Should Know," the Society's book
of instructions for rose-growing,

is sent to each member.

The Committee of Consulting Rosarians will give free advice on all rose subjects.

Dues \$3.50 per year

Three years for \$10.00

Address

Secretary, American Rose Society, West Grove, Pa.

To You!

Since you are a member of The American Iris Society, it need not be pointed out that you are a rather special sort of gardener, a person with more than average vision and imagination. As such a gardener of course you look for special things in all garden fields. Have you discovered the NATIONAL HORT-ICULTURAL MAGAZINE, published quarterly by The American Horticultural Society?

It is the special garden quarterly in America, written for persons like yourself, not for the dull who need a program, not for the horticulturally blind and lame who need second-hand sight and verbal crutches, but for the intelligent who like to read, who like to study, who prefer a new word or two regularly, who have courage not to follow fashion too blindly, who believe in gardening as much for the delights of mind and spirit as for the cultural blue ribbons of the shows. Try sending three dollars to Mr. D. Victor Lumsden, Secretary, 1629 Columbia Road, Washington, D. C. It will bring you iris notes and much else.





CUPRO-JABONITE

Prevents
Iris root rot — Delphinium "Blacks"

Prevents

basal rot and fungus diseases. Dust all roots, bulbs, etc. before planting, shipping, and storing.

A boon to Iris Growers.

Safe, economical & efficient-

Application is convenient, consisting of sprinkling (or coating) the affected rhizomes—

1 lb. Sprinkler cans—\$1.00 post paid— Special quantity prices to Nurseries and seed dealers.

If your dealer cannot supply you write—

Gordon Chemical Company, Inc. 1406 W. 9 Kansas City, Mo.

RIVERVIEW GARDENS

Growers of Fine Irises, Peonies, and Gladiolus. Please specify catalogue requesting.

A. J. Wilkus & Sons St. Paul, Minn. One of the World's Largest Collections from which to select

New, Rare and Good Old IRISES

1800 varieties
Tall, Intermediate, Dwarf,
Dutch, Spanish, Japanese
and Siberian.

PEONIES

1850 varieties Double, Single and Japanese varieties.

Wholesale and Retail Price Lists.

A special discount of 10 per cent from retail prices to A. I. S. members will be allowed on all orders received and paid for before August 15th.

Delivery: Iris from July 5th. Peonies September 18th. Both until November 1st.

Treholme Gardens Earl Wooddell Sheets, 1831 Lamont St., N. W. Washington, D. C.

HELP YOUR SOCIETY GROW

Invite your garden friends to become members
Use coupon below

The American Iris Society

CARE OF SCIENCE PRESS PRINTING CO. LANCASTER, PA.

I desire to become	ne a	member and
enclose the	dues for the current year (J	an. 1st to Dec. 31st, 19—)
' Name		
Ade	dress	
Date		
I enclose also the bulletins:	sum of	for the following

CLASSES OF MEMBERSHIP

Active Membership \$ 3.00 Special Three Year Membership, \$ 3.00 or more \$ 10.00 or more \$ 25.00 or more \$ 50.00 or more \$ 50.00

Please make checks payable to The American Iris Society. Send to the Science Press Printing Company, Lancaster, Pa.

THE AMERICAN HORTICULTURAL SOCIETY

Invites to membership all persons who are seriously interested in horticulture. For its members it publishes, an illustrated quarterly, The National Horticultural Magazine in which will be found a more diverse and interesting collection of horticultural material than in any other American garden publication. It is written by and for its members. Among its regular features are articles on: Conifers, California plants, American natives, iris species, narcissus, succulents, lilies, unusual shrubs and trees, rock plants, ivies, and many more. Particular features for 1933 will include a horticultural review of fuchsias and preliminary reports on tulip species. Membership is three dollars the year. Checks should be made to the Society and sent to Mr. C. C. Thomas, 211 Spruce Street, Takoma Park, Washington, D. C.

Farr Memorial Library

Members are reminded that any Garden Club or Horticultural Society has the right to borrow from the American Iris Society the Farr Memorial Library. This library was endowed as a memorial to Mr. Farr and can be had without any charge except actual express charges both ways.

Full details about the library are given in Bulletin No. 30 but briefly it may be stated that all known books on Iris are included as well as all past Bulletins of the American Iris Society and of The English Iris Society.

Applications should be made well in advance as the library has been in great demand and has been used by over forty organizations during the past few years.

Apply to Nearest Office

East: The Horticultural Society of New York, 598 Madison Avenue, New York City.

Midwest: Mrs. Katherine H. Leigh, Missouri Botanical Garden, St. Louis, Mo.

West: Sydney B. Mitchell, School of Librarianship, Berkeley, California.



